JOURNAL

OF

SOUTH AFRICAN BOTANY

VOLUME XIII.

A DESCRIPTION OF THE CODEX WITSENII IN THE SOUTH AFRICAN MUSEUM.

(With Plates I--XII).

By K. H. Barnard, D.Sc., F.L.S., South African Museum.

The first mention in print of the existence in Cape Town of two MS. volumes of paintings dealing with Simon van der Stel's Namaqualand expedition seems to have been made by Strangman. He does not describe either the Museum or the Public Library volume, beyond saying that the paintings in the latter are of " far finer quality and finish," and that the natural history notes are very similar in both but without dates in the latter.*

In 1924 Prof. G. Waterhouse gave a preliminary account of a MS. Journal and a series of coloured drawings describing Simon van der Stel's journey to Namaqualand. In 1932 he published a fuller account in book form, reproducing the pictures in monochrome, the Dutch text of the Journal and of the natural history notes, together with an English translation.†

In both accounts Waterhouse mentions the existence of a volume of similar drawings in the South African Museum, and in his book he gives some details of the series. This Museum volume had been temporarily deposited in the Archives, Cape Town in 1924. No application was received by the Museum for information concerning the volume, and the details printed by Waterhouse were derived from Col. C. Graham Botha, then Chief Archivist. One or two (very minor) errors in transcription, however, have crept into Waterhouse's account. Moreover, the South African Museum, being familiar with the local fauna, might possibly have helped him in the identification of the animals in some instances to better purpose than the Natural History Museum, London. In mitigation, however, be it said that apparently Waterhouse submitted only *monochrome* photographs of the pictures (1932, p. 172) *without the accompanying notes*, which was not altogether fair to the Natural History Museum.*

---

* E. Strangman. " On the identity of Claudius." Cape Times, 9th April, 1921. Cape Town. The title is to some extent a misnomer.

† G. Waterhouse. Geogr. Journ. R.G.S. vol. lxiv. No. 4, Oct., 1924.

Idem. Simon van der Stel's Journal of his Expedition to Namaqualand 1685-6. Longmans, Green & Co., 1932.

In the following description of the South African Museum volume the original Dutch text of the natural history notes is reproduced in full, and all the pictures. Comparison can thus be made with the Trinity College, Dublin (T.C.D.) text, which Waterhouse was not in a position to do. There is also the series in the South African Public Library, Cape Town (S.A.P.L.), and from these three sources 91 different picture-folios are known. The two panoramas and all the botanical pictures are represented in S.A.M., which lacks only 13 of the others (1 Namaqua, 12 zoological) and can therefore be regarded as the most complete series.†

Moreover, particular interest attaches to the S.A.M. volume because (1) it contains an inscription written and signed by Nicolaas Witsen saying the work was made for him at the Cape in 1692.* This fact was overlooked by Strangman.

---

* E.g. T.C.D. 747 was identified as a Pied Barbet. The corresponding picture in the South African Public Library volume, No. Z.7 (see p. 9 infra), is the common brown and yellow Cape Canary. The Dutch text "fluyt seer liefflyck" would apply to the latter bird, but not to the former. See also note on fol. 136. p. 44.

† Waterhouse mentioned two other collections of drawings, but not the following :—

Catal. Libr. Brit. Mus. (Nat. Hist.) vol. iv. p. 1558, 1913.

> "73 rough water-colour drawings of Plants made at the Cape, from living specimens, for Dr. Martin Dolneus, and given [*sic.* Petiver says purchased] by him to J. Petiver. 67 of these were used by Petiver in the preparation of the plates for his '*Gazophylacii Naturae . . . . . decas nona*', and bear the reference to those plates in his handwriting. Banksian MS. No. 88. *Vide* Dryander's 'Cat. Bibl. Banks' vol. iii. p. 178. Cf. also the author's '*Gazophylacii Naturae . . . . . decas nona*, explanation to Plate xc. fig. 9."

Petiver in the caption to first page of '*Decas Nona seu Herbarium Capense*' of his *Gazophylacii Naturae* says :—

> "This Decade contains the Figures of One Hundred Elegant Plants, all growing about the Cape of Good Hope. And Copied from the Original Paintings taken from the living Plants, viz. : Those which the States of Amsterdam presented to the Right Reverend the Bishop of London, when His Lordship was at the Congress there A.D. 1691, with above Fifty other Painted from Growing Plants. Lately Purchased from the Cape."

(2) It was in the possession of Johannes Burman,† who copied some of the botanical pictures to illustrate his descriptions of Cape plants, and was referred to by him as one of the " three codices of the illustrious Burgomaster Witsen " (Burman, p. vi).

(3) Its history is documented, with the exception of two periods: Waterhouse has attempted to show how this Codex came into Burman's possession; but nothing is known of its history between 1800, when Burman's library was sold, and 1829 when Sir J. A. Truter presented it to the South African Literary Society.§

I have not compared the text of all the notes accompanying the pictures in S.A.P.L.; these are written on alternate folios as in T.C.D., not on the reverses of the picture-folios, and some of the pictures have no accompanying notes. But a brief comparison shows that they are verbally very like those in S.A.M. (cf. fol. 63 (53) *infra*). They are written in Gothic script, but in a different hand from that of the zoological notes in S.A.M. They give the native names, but *not the dates* when the plants and animals were found.

These so-called Claudius drawings (T.C.D., S.A.M., S.A.P.L., etc.) are mainly of historical interest. Many have been copied in certain classical pre-Linnean works, but from a taxonomic point of view they are not picto-types. Botanists and zoologists would not be inconvenienced if neither the S.A.M. volume nor any of the other series had survived. As they *have* survived, it is useful to put on record exactly what pictures are in the S.A.M. volume, as Waterhouse has done for T.C.D.

---

* Nicolaas Witsen, 1641-1717. Several times Burgomaster of Amsterdam between 1682 and 1705. Portrait in Winkler Prins, Algemene Encyclopaedie, 1938.

† Johannes Burman, 1706-1779. *Decades Rariorum Africanarum Plantarum ad vivum delineatarum.* Dec. I-IV, 1738. Dec. V-X, 1739. Amsterdam.

Nicolaus Laurentius Burman. 1734-1793.

N. L. Burman, filius, 1782-1826.

See: M. C. Karsten, Journ. S. Afr. Bot. v. 1939, where a portrait of N. L. Burman, pater, is reproduced. Karsten gives dates of birth of J. Burman as 1707 and of N. L. Burman as 1733 (Waterhouse also gives 1707). Winkler Prins, Algemeene Encyclopaedie, 1938, confirms the dates 1706 and 1734 which are given in Catal. Libr. Brit. Mus. (Nat. Hist.), vol. i. 1903.

§ Johannes Andreas Truter, 1763-1845. Studied at Leyden, 1783-1787. Fiskaal at the Cape 1809-1812. Chief Justice 1812-1828. See: Van Riebeeck Society Publicat. No. 24, 1943. Editor's note 14 on p. 107.

S.A. Literary Society founded 1824. But " . . . . owing to some local impediments at the time . . . . its regular and legal existence was reserved for the year 1829 . . . ." In 1832 it became the S.A. Literary and Scientific Institution, and continued until 1855. See: L. Crawford, Trans. Roy. Soc. S. Afr. xxii, pt. 4, p. 313, 1934.

Waterhouse (1924, p. 300 and 1932, p. xii.) mentions de Mist's statement that the original van der Stel Journal with 72 drawings had disappeared from the Archives of the Dutch East India Company in Holland. C. Graham Botha had previously stated in the foreword to a lecture that "These must have been returned, for both the Journal and 72 drawings are to-day in the Hague Archives (Ref. K.A. 3999 for 1686)." Col. Botha has asked me to correct this statement which was due to his being misinformed.*

My thanks are due to Mr. D. H. Varley, Librarian of the South African Public Library, Cape Town, for permitting me to examine the series of drawings in his charge, and collate them with those in S.A.M. They are done on paper which is whiter, and seems of better quality than that in S.A.M.

The S.A.M. pictures are, mostly, rather crude. Many of them, however, compare favourably with T.C.D. as regards draughtmanship; as regards colouring a comparison is not yet possible. Only when one compares S.A.M. with S.A.P.L. does one realise how crude the former really are, both as regards draughtmanship and especially colouring. E.g. in S.A.P.L. No. B 17 the flowers are a beautiful crimson; in the corresponding S.A.M. fol. 49 they are brown daubs. A comparison of the draughtmanship of S.A.M. 75, T.C.D. 787, and S.A.P.L. B 27 is interesting (see p. 32 infra). It is questionable whether any of the S.A.M. pictures are the work of Claudius himself.

I am indebted to Mr. S. Garside for several interesting and informative talks about these pictures, and especially for lending me his copy of Tachard and photostats of rare botanical illustrations in his library. Also to the Trustees of the National Botanic Gardens for undertaking the publication of this commentary.

Prof. R. H. Compton (National Botanic Gardens), Mr. N. S. Pillans and Miss F. M. Leighton (Bolus Herbarium, University of Cape Town) have added the modern scientific names of the plants in the concordance (pp. 10, 11). Being field botanists, they are familiar with the local flora, and it is not surprising that in some cases the identifications differ from those given in Waterhouse.

---

* C. Graham Botha. "Some Early Exploring Expeditions and Travels in South Africa." A lecture delivered on 31st March, 1916 at the Quarterly Meeting of the Mountain Club, Cape Town, (with foreword, privately printed; without foreword, Annual of the Mountain Club of South Africa, No. 20, p. 45, with map, 1917).

The statement (Annual p. 54, Reprint p. 4), that van der Stel crossed over Piquenier's Kloof (Grey's Pass) to the Olifants River is also incorrect. At the northern end of Piquetberg the expedition turned through St. Martin's Kloof (Het Kruis) and then northwards, passing Heerenlogement, and crossing the Olifants R. at the Compagnies Drift just below the junction of the Doorn R. See: the Journal as reproduced by Waterhouse; also Journal of Olaf Bergh., Van Riebeeck Society Publicat. No. 12, Ed. E. E. Mossop, Cape Town, 1931. 1st Journey, footnotes 11, 14, 17, 19, and Appendix A, and map.

DESCRIPTION OF THE VOLUME.

Waterhouse (1932, p. xxi.) has given a general description of the S.A.M. volume, which may be supplemented by the following details. The binding appears to be original. The back has 9 gilt-ornamented panels. The front cover near the top has a large Capital Q and a full-stop, in faded ink. There are also in the middle of this cover indications of two initials which have been erased; only faint traces of the ink stain can be seen, and the letters are illegible (they may possibly have been N.B.). The significance of the Q is at present unknown.

The size of the paper (sheets with unworn edges) is $12\frac{3}{10}$ x $7\frac{4}{5}$ inches.

The various watermarks, only one of which and its countermark is mentioned by Waterhouse in connection with the S.A.M. volume (1932, p. xxi.), occur as follows :—

1. Fool's Cap (Heawood, fig. 121.*) 25mm. wire bars : fols. 1, 2, 162 i.e. 1st cover page (blank), 2nd cover page, and penultimate cover page (blank).

2. Arms of Amsterdam, with mantling, H. G. in block capitals below shield (cf. Heawood, fig. 164.), 25mm. wire bars : fol. 3 (panorama), fol. 6 (blank), fols. 9, 10, 11 etc., to 124, and fols. 128-161, interleaved with countermark 2a.

2a. Countermark P B in block capitals, 25mm. wire bars : fols. 4 and 5, 7, 8, 12 etc., interleaved with 2.

3. Arms of Amsterdam, with mantling, no initials, 25mm. wire bars : fol. 125 and fol. 163 (last cover page, blank).

3a. Countermark G T in block capitals, 25mm. wire bars : fol. 126.

4. Countermark CDG (Heawood in Waterhouse, 1924, p. 312, and 1932, p. xiv. footnote 19.) : fol. 127, blank.

---

* Heawood. Geogr. Journ. R.G.S. vol. lxiii, No. 5, May 1924, p. 391, 2 pls.

The sequence of the folios as bound is as follows :—

Folios as bound.	Original numbers.	Subject.	Remarks.
1	—	(Blank)	B's historical note pasted on. S.A. Museum library press mark. Watermark No. 1.
2	—	Inscriptions by	Witsen, Truter, Layard. Watermark No. 1.
3	(corner torn)	Panorama	Explanatory notes on reverse. Watermark No. 2.
4	—	Notes continued	Countermark No. 2*a*.
5	5	Panorama	Explanatory notes below picture. Countermark No. 2*a*.
6	—	(Blank)	Watermark No. 2.
7	7	Botanical	1st botanical picture. Countermark No. 2*a*.
8	—	(Blank)	Countermark No. 2*a*.
9	9	Botanical	Watermark No. 2.
10	—	(Blank)	
11	11	Botanical	
12	—	(Blank)	
	(This sequence continues : pictures on odd-numbered folios, with notes on the reverses ; interleaved folios blank and un-numbered).		
45	45	Botanical	20th botanical picture.
46	—	(Blank)	
47	44	Botanical	This folio and its blank misplaced by binder, or wrongly numbered after binding. Henceforth the picture-folios are serially numbered, the blanks ignored.
48	—	(Blank)	
49	46	Botanical	
50	—	(Blank)	
51	47	Botanical	
52	—	(Blank)	
	(This sequence continues).		
123	83	Botanical	59th botanical picture. Last original folio number.
124	—	(Blank)	
125	—	(Blank)	Watermark No. 3.
126	—	(Blank)	Countermark No. 3*a*.
127	—	(Blank)	Countermark No. 4.
128	—	Zoological	1st zoological picture. None of these folios were originally numbered.
129	—	(Blank)	
130	—	Zoological	
131	—	(Blank)	
132	—	Zoological	3rd zoological picture. The notes on reverse of this and all the following are written in Gothic script. (Plate XII, Fol. 160, reverse).
133	—	(Blank)	
	(This sequence continues).		
160	—	Zoological	17th zoological picture.
161	—	(Blank)	
162	—	(Blank)	Watermark No. 1.
163	—	(Blank)	Watermark No. 3.

Two folios of panoramas, 59 folios of plants (only one picture on each folio), 17 folios of animals (27 pictures).

Concordance of the folios in S.A.M. with those in T.C.D. and S.A.P.L., and with the illustrations reproduced in Burman(B) and Tachard(T). As the folios in S.A.P.L. are not numbered, the pictures are referred to here as B 1, 2, etc. (Botany) and Z 1, 2, etc. (Zoology).

Botany.

S.A.M.	T.C.D.	S.A.P.L.	B.	T.	
3*a*	728*a*				
3*b*	728*b*+729 part				
4	729 part				
5	730	x			
7	843	B 6		x	
9	811	B 28	x		
11					
13			x		
15				x	
17			x		
19			x	x	
21				x	
23					
25			x		
27			x	x	
29					
31					
33	813	B 20			
35	861	B 40			
37	835	B 4		x	
39	857	B 21	x	x	
41	821	B 2		x	
43	785	B 35		x	
45	805	B 10			
47	803	B 18			
49	809	B 39			
51	815	B 5		x	Cf. fol. 89
53	795	B 24			
55	801	B 17		x	
57	867				
59	855	B 34		x	
61	859	B 11			
63	799	B 23			
65	845	B 29			
67	849	B 14		x	
69	833	B 31		x	
71	865	B 19			
73	839	B 1		x	
75	787	B 27			
77	837	B 32		x	
79	819	B 30			
81					
83			x		
85	869	B 25	x		

S.A.M.	T.C.D.	S.A.P.L.	B.	T.	
87			x		
89			x		Cf. fol. 51
91			x		
93	823	B 38			
95	797	B 36			
97	841	B 3			
99	807	B 13			
101	791	B 26			
103	863	B 37			
105	831				
107	853	B 33			
109	793	B 16			
111	817	B 9			
113	825	B 12			
115	829				
117	789	B 22			
119	827	B 15			
121	851	B 7			
123	847	B 8			

Zoology.

S.A.M.	T.C.D.	S.A.P.L.	T.	
128	761	Z 14		
130*a*	{ 759 upper figure }	Z 13		
b	760 part			
132				
134				
136	783			
138	781			
140	779			
142	735	Z 2		
144	743		x	"Grand Lezard du Cap"
146	775			
148	773			
150	769			
152				
154	[745]	Z 5		
156	777			
158	771		x	"La Ceraste ou Serpent Cornu"
160	751	Z 1		

S.A.M. has 16 plants not in T.C.D., of which 9 were figured by Burman.
,, ,, 3 animals not in T.C.D. (4 including T.C.D. 745, which has text only, picture missing).
,, ,, 1 panorama not in S.A.P.L.
,, ,, 19 plants not in S.A.P.L.
,, ,, 12 zoological folios (21 pictures) not in S.A.P.L.

All the S.A.M. pictures refer to van der Stel's Namaqualand Expedition except two plants, viz.: fol. 21 (*Brunsvigia*) not dated, and fol. 97 (70) collected by van der Stel on 30th January, 1686, four days after his return to the Cape.

Concordance of all pictures in the three series: T.C.D., S.A.P.L., and S.A.M., with identifications. The zoological names are from Waterhouse (1932, p. 173), revised by Barnard; the botanical names by Compton, Pillans and Miss Leighton.

T.C.D.	S.A.P.L.	S.A.M.	Subject.
728	—	3	Panorama.
730	x	5	Panorama.
731	—	—	Namaqua man and woman.
733	—	—	Mierkat (*Suricata suricatta*).
735	Z 2	142	Hare (*Lepus*) and Caterpillar of a Saturniid moth.
737	Z 3	—	Elephant Shrew (*Macroscelides*).*
739	—	—	Two Hares (*Lepus*).
741	Z 4	—	Chameleon (*Chamaeleo namaquensis*).
743	—	144	Lizard (*Cordylus cataphractus*).†
745	Z 5	154	Lizard (*Agama* sp.). In T.C.D. picture missing but text 746 present.§
747	Z 7	—	Cape Canary (*Serinus canicollis*). In Waterhouse wrongly identified as " Pied Barbet."
749	Z 11	—	Capped Wheatear.
751	Z 1	160	River fish (*Barbus capensis*).
753	Z 8	—	Sacred Ibis.
755	Z 10	—	European Bee-eater.
757	Z 9	—	Namaqua Sandgrouse.
759	Z 13	130	Namaqua Dove and Wood Dove. Only the upper figure in S.A.M.
761	Z 14	128	Namaqua Dove.
763	Z 12	—	Red-wing Spreeuw.
765	—	—	Speckled Mousebird.
767	Z 6	—	White-backed Mousebird.
769	—	150	Upper figure: Yellow-lipped Snake (*Leptodira*); lower: probably Egg-eater (*Dasypeltis*).
771	—	158	Horned Adder (*Bitis cornuta*).
773	—	148	Mole Snake (*Pseudaspis cana*).
775	—	146	Upper figure: possibly young Mole snake; lower: possibly Legless Lizard (*Acontias*).

---

* Petiver (Gazophylacii Naturae . . . . i. pl. xxiii. fig. 9, 1702) reproduced a copy of this which he named *Mus araneus capensis*, the Great Cape Shrew Mouse. W. L. Sclater. Mammals of South Africa, ii. p. 147, 1901.

† Pictures resembling T.C.D. 741 and 743 are reproduced in Tachard, (1st voyage) figs. xi and xiii; and Petiver, pl. lviii. figs. 11 and 12.

§ Tachard, fig. xii, and Petiver, pl. lvii, fig. 15, figured an Agama-like lizard, but with three crosses on the back in place of the lozenge-shaped patches. " Cross-back'd Cape Lizard. A very particular Animal which I should be glad to see. I figured it from Father Tachard's Cape designs." (Petiver).

T.C.D.	S.A.P.L.	S.A.M.	Subject
777	—	156	Yellow Cobra (*Naia flava*). In Waterhouse identified as " ? Mamba."
779	—	140	Two Scorpions (*Opisthophthalmus* and *Parabuthus*).
781	—	138	Two Centipedes (*Scolopendra*) and Spider (*Argiope*).
783	—	136	Grasshopper (*Hetrodes*) and Solpuga. The latter figure unidentified in Waterhouse.
—	—	132	Two Beetles (*Julodes* and *Anthia*).
—	—	134	Ant-Lion and Stick-insect.
—	—	152	Two lizards (*Eremias*).
		(All	the following are plants).*
785	B 35	43	Lapeyrousia anceps Ker.
787	B 27	75	Sceletium sp.
789	B 22	117	Veltheimia glauca Jacq.
791	B 26	101	Pteronia sp.
793	B 16	109	Sarcocaulon sp.
795	B 24	53	Lachenalia hirta Thbg.
797	B 36	95	Morea edulis Ker.
799	B 23	63	Aloe dichotoma L.f.
801	B 17	55	Gladiolus carinatus Ait.
803	B 18	47	Lebeckia cytisoides Thbg.
805	B 10	45	Heliophila sp.
807	B 13	99	Acacia karoo Hayne.
809	B 39	49	Euclea multiflora Hiern.
811	B 28	9	Anesorhiza sp.
813	B 20	33	Montinia caryophyllacea Thbg
815	B 5	51	Nemesia bicornis Pers.
817	B 9	111	Asparagus capensis L.
819	B 30	79	Heeria argentea Engl.
821	B 2	41	Aloe variegata L.
823	B 38	93	Ficus cordata Thbg.
825	B 12	113	(Asclepiadaceae).
827	B 15	119	Pelargonium echinatum Curt.
829	—	115	Gladiolus Watermeyeri L. Bolus. ? [illegible]
831	—	105	Cyphia digitata Willd.
833	B 31	69	Royena hirsuta L.
835	B 4	37	Babiana tubata Sweet.
837	B 32	77	Asclepias fruticosa L.
839	B 1	73	Wurmbea capensis Thbg.
841	B 3	97	Xysmalobium undulatum R. Br.
843	B 6	7	Aloe melanacantha Berger.
845	B 29	65	Aloe khamiesensis Pillans.
847	B 8	123	Euclea acutifolia E. Mey.
849	B 14	67	Albuca altissima Dryand.
851	B 7	121	Euphorbia stellaespina Haw.
853	B 33	107	Gorteria sp.
855	B 34	59	Erythrophysa alata Hutchinson.
857	B 21	39	Cotyledon decussata Sims.
859	B 11	61	Walleria armata Schltr.
861	B 40	35	Euphorbia loricata Lam.
863	B 37	103	Indigofera psoraleoides L.

---

* While most of the botanical names can be regarded as true identifications, some are probably incorrect as to species or even genus, the simplified and conventional nature of the drawings making certainty impossible. Evidence derived from dates, localities, native names, etc., has been taken into account. (R. H. Compton, N. S. Pillans, F. M. Leighton).

T.C.D.	S.A.P.L.	S.A.M.	Subject.
865	B 19	71	Mundia spinosa DC.
867	—	57	Pelargonium fulgidum Willd.
869	B 25	85	Pelargonium pulchellum Curt.
—	—	11	Limeum capense Thbg.
—	—	13	Conophytum sp.
—	—	15	Ornithogalum suaveolens Jacq.
—	—	17	Euphorbia hamata Sweet.
—	—	19	Gamolepis speciosa Pillans
—	—	21	Brunsvigia appendiculata Leighton.
—	—	23	Polanisia lutea Sond.
—	—	25	Euphorbia mauritanica L.
—	—	27	Pelargonium oblongatum E. Mey.
—	—	29	Ficus cordata Thbg.
—	—	31	Mundia spinosa DC.
—	—	81	Tritonia crispa Ker.
—	—	83	Peucedanum sp.
—	—	87	Manulea benthamiana Hiern.
—	—	89	Nemesia cheiranthus E. Mey.
—	—	91	Othonna leptodactyla Harv.

	T.C.D.	S.A.P.L.	S.A.M.	
Panorama	2	1	2	2 known.
Namaqua	1	—	—	1 known.
Zoology (+1 missing 26).	25	14	17	29 different folios known, containing 41 different pictures.
Botany	43	40	59	59 different pictures known.
	71 (72)	55	78	91

T.C.D. lacks 3 zoological folios (excluding 745 of which the text is present) and 16 botanical folios.

S.A.P.L. lacks 1 panorama, Namaqua, 15 zoological and 19 botanical folios.

S.A.M. lacks Namaqua and 12 zoological folios.

TACHARD.

The account of Père Tachard's first voyage to Siam* contains pictures of two native types : Hottentot man and woman, Namaqualand man and woman ; and eight animals. Two of the latter " La Ceraste ou Serpent Cornu " (fig. x) and " Grand Lezard du Cap " (fig. xiii) correspond with S.A.M. fols. 158 and 144. A third (fig. xi) represents a chameleon corresponding with T.C.D. 741 and S.A.P.L. No. Z 4.

---

* Guy Tachard. Voyage de Siam . . . . . Amsterdam, 1688. (8vo. edition).

Some of these illustrations would seem to be copies of pictures given to Tachard by Claudius. "Comme ce savant Médicin [Claudius] a déja fait quelques Voyages . . . . . c'est de luy que nous avons tiré toutes les connoissances que nous avons de ce Païs, dont il nous donna une petite Carte faite de sa main avec quelques Figures des Habitans du Pays & des Animaux les plus rares que j'ay fait ajouter icy." (pp. 65, 66).

The figure (fig. vii, called Remore in the Instructions to binder at end of volume) of the Rhinoceros, however, is a copy of Durer's famous engraving printed in Gesner, *Hist. Anim.* (1551-1587).

Sixteen plants, on three plates, are reproduced in the Second Voyage.* All these 16 illustrations are paralleled in S.A.M., but 4 of them (corresponding with S.A.M. fols. 15, 19, 21, 27) are not in T.C.D. Three of them (S.A.M. fols. 19, 27, 39) are also in Burman. Tachard's illustrations resemble in many respects the S.A.M. pictures more closely than they do the corresponding pictures in T.C.D. ; but obviously they were not copied from the Codex Witsenii dated 1692.

S.A.M. fol. 15, paralleled in Tachard, does not appear in T.C.D., S.A.P.L., or Burman.

The Namaqua man and woman corresponds with T.C.D. 731, but the picture of the Hottentot man and woman does not occur in T.C.D., S.A.M., or S.A.P.L.

JOHANNES BURMAN.

J. Burman (*Decades* 1738-39) figured 92 plants from the *Codex Witsenii*, 34 from the *Herb. Witsenianum*, and 33 from the *Codex Simon van der Stel*.

None of the plants described and figured from the two latter sources occur in the S.A.M. volume, which is one of three volumes comprising the *Codex Witsenii* (*supra* p. 3). Only 12 of its pictures have been copied by Burman to illustrate the Decades ("ex hoc fonte pro parte hausit," see fol. 1.), viz. : folios 9, 13, 17, 19, 25, 27, 39, 83, 85, 87, 89 and 91 (see concordance p. 7). Where are the other two volumes of the *Codex* containing the remainder (70) of the 92 plants ?

Only 3 of the 12 pictures used by Burman (S.A.M. fols. 9, 39, 85) occur in T.C.D. (811, 857, 869), and it is obvious that Burman did not use T.C.D. for any of these illustrations. Nor did he use Tachard. S.A.M. fol. 89 represents, in a crude and less exact manner, the same plant as fol. 51, but Burman took his illustration (Tab. xl. fig. 3.) from fol. 89, not from Tachard whose reproduction is more like fol. 51.

S.A.M. fols. 13, 83, 87, 91 do not appear to have been figured in Plukenet or Petiver, as N. L. Burman gives no references to them.

---

* Second Voyage du Pere Tachard . . . . au Royaume de Siam . . . . . Amsterdam, 1689. (8vo. edition).

NATIVE NAMES.

Plants.

The native names in S.A.M. correspond with those in T.C.D., except : S.A.M. fol. 43 has *cabung* not *chabi* as in T.C.D. 786 ; T.C.D. has 836 *cabong*, the corresponding S.A.M. 37 gives no name ; S.A.M. 73 has *chabÿ*, the corresponding T.C.D. 840 gives no name. All these pictures represent bulbous plants.

In addition to the above two names, there are some slight differences in spelling :

qua roebe	(S.A.M. 117)	*quaroube*	(T.C.D. 790)
chamare	,, 9)	*gammare*	,, 812)
dgoree	,, 41)	*degorée*	,, 822)
tkaubÿ	,, 121)	*thaubÿ*	,, 852)
samoe	,, 59)	*sumoe*	,, 856)
kebeep	,, 39)	*hobeep*	,, 858)

The name *cabouti* (S.A.M. 119) does not occur in T.C.D. 828, or elsewhere.

Animals.

Where S.A.M. has pictures corresponding with those in T.C.D. the names agree. The (Namaqua) name *Ou* in T.C.D. 780 does not occur in the corresponding S.A.M. 140, only the (Grigriqua) name *eynte*.

Slight differences in spelling occur :

nabasse	(S.A.M. 142)	*nabosse*	(T.C.D. 736)
aroebe	(,, 142)	*aroubi*	(,, 736)
quelip	(,, 130)	*queip*	(,, 760)
noumqueab	(,, 146)	*nounquab*	(,, 776)
coerequequekam	(,, 138)	*coeruquekekam*	(,, 782)
toucomqueri	(,, 138)	*thoucomqueri*	(,, 782)
holop	(,, 138)	*houeb*	(,, 782)
gnarebÿ	(,, 136)	*gnarebi*	(,, 784)

The name *gambrÿ* occurs in T.C.D. as the name of a plant (850), and *gambri* as the name of a bird (764). The former corresponds with S.A.M. 67 (the same name occurs also in fol. 15), but no folio corresponding to the latter is in S.A.M.

TRANSCRIPTIONS OF THE NATURAL HISTORY NOTES, TRANSLATIONS, AND COMMENTS.

FOL. 1.

On the two sides of a small sheet of paper attached to the first cover page (fol. 1) occurs the following inscription. The sheet was cut from a larger sheet, and measures $6\frac{2}{5}$ x 4 in. ; at the top a portion of the watermark remains, viz. : in block capitals SUPEI [superfine ?].

a(front). Plantae & Animalia in/Promontorio Bonae Spei/Africes ad naturam/delineata & colorata/A° 1692, in usum/Con^{s}. Amstelad., nec non/Rerum Orientalium/Directoris Nicolai/Witsen./Ex Bibliotheca cl. N.L./Burman, dum in vivis/esset Botanices Professoris/in Ill. Amstelad. Athe-/naeo, publice distracta L./B.27 Novembris A° 1800.

b(reverse) Systhematica Planta-/rum denominatio/apposita est manu/cl. viri./Joh^{s} Burman, N^{i}. L^{ii}./pater, itidem Botanices/Prof. Amstelad., anteriorque/hujus collectionis poss-/essor, delineationes &/descriptiones Planta-/rum Africanarum A°/1738, 9 a se editarum,/ex hoc fonte pro parte/hausit. B.

There are three minor errors in Waterhouse's transcription : (front) Ex Bibliotheca *d* N. L. Burman, should read *cl* ; (reverse) Sys*t*ematica should read Sys*th*ematica ; and *praeposita* should read *apposita*.

Although this note states that N. L. Burman (pater) inscribed the systematic names of the plants, Waterhouse (1932, p. xxii) merely says they are " in a different handwriting " from the original Dutch notes.

When N. L. Burman made these entries cannot be determined ; but at least the entry on fol. 21 cannot be earlier than 1753 because it contains the reference to Heisterus.

In Burman's handwriting the numerals 4 and 9 are liable to be confused : 4 is like a 9 with straight downstroke, but the real 9 has a long curved tail (Plate XII, fol. 63 (53) reverse).

FOL. 2.

The second cover-page (front) has the following three inscriptions :

In the handwriting of E. L. Layard :*

> South-African Museum./(Presented by The South-African/Literary and Scientific Institution,/25th June, 1855).

In the handwriting of Nicolaas Witsen :

> Dit Werk is/voor mij Aen de/Kaap gemaekt/N : Witsen/1692.

---

* South African Museum founded 25th June, 1855. An extract from the Minutes of the South African Literary and Scientific Institute, dated 23rd June 1855, is filed in the first Minute-book of the Museum Trustees, recording the handing over of books and other possessions of the Institute to the Museum, signed by D. Tennant, Hon. Sec. But no inventory of the articles so handed over is known. E. L. Layard, Curator, 1855-1872.

In the handwriting of (presumably) Sir J. A. Truter :

> Presented bÿ Sir Johannes/Andreas Truter Knight, etc. etc. etc./
> to the S.A. Literary Society/ in 1829/J.A.T.[?] Secÿ.*

FOL. 3a. (T.C.D. 728) Plate I.

For purposes of comment the two panoramas (fols. 3 and 5) may be taken together. The first, showing van der Stel's camp in Namaqualand, in general resembles T.C.D. (Waterhouse, 1924, fig. 1. and 1932, plate facing p. 97) but differs in certain details, e.g. 17 waggons around the camp instead of 15.† The far distance beyond the head of the valley above the camp does not represent " distance " nearly as well as does T.C.D. ; there are only three hills, and the righthand one on the sky-line is much the largest ; the compass bearing is drawn from the latter instead of from the ridge B.B.B. on the left. The details of the rocks, bushes, and Aloe trees differ slightly.

Fol. 5 is also very similar to T.C.D. 730, though differing slightly in details. The compass bearing is in the same position, but the peak on the left is more conical than in T.C.D., and higher than the thumb-like peak farther to the left.

Both panoramas have been done with painstaking care, and the S.A.M. pictures cannot be considered of inferior *draughtsmanhip* than those in T.C.D. As regards colouring, however, the panorama (there is only one corresponding to S.A.M. 5, T.C.D. 730) in S.A.P.L. is very much more natural than S.A.M., the distant peaks being bluish-grey instead of green.

FOL. 3b. (=T.C.D. 728 reverse+729 part).

The front margin is rubbed and torn, and only some of the reference letters remain.

[A-]A.A. Dit is de Coperberg, door den E Heer Commandeur/ Simon van der Stel, den 21 Octob: 1685, ondect, en ruÿm/ 10 mÿlen verre personelÿk gevisiteert, en doorgaens/een gank en ader, die van onder uÿt den grond op/tot den top van den berg klimt, en ten minsten/van 8 tot 9 voeten, dog merendeels van 2 â 3 roede/breedte, ganschelÿk van een Coleur, en met Spaans/groen uÿtgeslagen bevonden.

---

* I have not discovered whether Truter was actually Secretary of the S.A. Literary Society, but the initials can be read as " J.A.T." written with a flourish. See footnote p. 3.

† Cf. G. McC. Theal. History of South Africa . . . . 1652-1795, London. 2nd ed. 1897, i. p. 275. " The train as now completed consisted of fifteen waggons."

[H-]V : R.	Een Berg gansch en geheel uÿt Coper-ertz, van/boven tot beneden toe, bevonden, dierhalven aldaer/wel 18 voeten diep gegraven, en hand over hand rÿc-/ker minerâl ten voorschÿn gekomen is.
[St]M.	Een berg halv van ertz, dog werd gelooft in- /nerlÿk alsoo rÿk als die van H : V : R :, en een ende/deselve gank of ader te wesen, dierhaven, tot 4 voeten/diep, bearbeÿd, en van seer goed minerâl bevonden. (=T.C.D. 729).
[S:V:]S :	Een berg met een groote vlacte, dewelke de boven-/gem^{te} gank wel 2 a 2½ roede breed doorsnÿd, is tot 2/voeten diep bearbeÿd, ende 't ertz soo goed als/het voorgaende geoordeelt.
[B:B:]B :	De gank of Coper-ader, die als gesegt ruÿm 10/mÿlen verre is vervolgt, en welkers eÿnde onbekent is.

Een

FOL. 4. (=T.C.D. 729 part).

The front margin has been trimmed. Continued from fol. 3b.

C.C.C.	Een Fontain of gestadig lopend beeckje [. . . ? . . . /alsulken riet, als in 't Vaderland valt, beÿder [. . . ? . . . /bewassen.
D.D.D.	Aloes-bomen.

FOLS. 3b and 4 (translation).

A.A.A.	This is the Copper Mountain discovered by the Honourable Commander Simon van der Stel on 21st October 1685, and visited by him in person for a distance of 10 miles, and [consisting] throughout of one lode and vein, which rises from out of the ground to the top of the mountain, and [is] at least 8 to 9 feet, but in most parts 2 to 3 rods* broad, all of one colour throughout, and found to be covered with verdigris.
H.V.R.	A mountain consisting entirely of copper ore from top to bottom, therefore excavated a good 18 feet deep, and " hand over hand " rich mineral was brought to light.
St. M.	A mountain half of ore, but believed to be as rich internally as H.V.R., and to be one end of the same lode or vein, therefore worked to 4 feet deep, and found to be of very good mineral.
S.V.S.	A mountain with a large level space which is cut through by

---

* " The *roede* varies locally between 3½ and 4 metres. The Rynland ' roede ' in use at the Cape contained 12 feet." Waterhouse, 1932, p. 172.

the above-mentioned lode fully 2 to 2½ rods in width*; was worked to a depth of 2 feet, and the ore considered to be as good as the afore-mentioned.

B.B.B. The lode or vein of copper, which as mentioned was followed for a distance of 10 miles, and whose termination is unknown.

C.C.C. A spring or constant-flowing brook, both banks overgrown with the same kind of reeds as in the Fatherland.

D.D.D. Aloe-trees.

FOL. 5. (=T.C.D. 730) Plate I.

The legend is at the bottom of the picture, lengthwise, near the back margin.

E.E.E.E. Een vlacte omtrent drie mÿlen Noord-waarts van den Coperberg gelegen, in 't/midden van dewelke een vlacke Horizontale klip men gevonden heeft, uÿt/welkers poren of gaetjes 't Spaansgroen gelÿksaam uÿtborreld en te voorschÿn komt.

E.E.E.E. A plain situate about three miles northward of the Copper mountain, in the middle of which was found a flat horizontal rock, from the pores or holes of which verdigris bubbles, so to speak, and comes to light.

FOL. 7. (=T.C.D. 843) Plate II.

a. Tachard's figure has the stem uncut, but is otherwise more like S.A.M. than T.C.D., in having the same number (3) of leaves on either side of the centre one, and 4 flowers, symmetrical, the lower two open, the upper two unopened; 5 fruits (like T.C.D., but differently arranged) instead of 4; the main root curves to right, contrary to S.A.M. and T.C.D.

b. (=T.C.D. 844).

Semper vivum Spinosum, werd gevonden op klip en sand-/agtige plaatsen, omtrent het minerâl gebergte, en word/van de Hottentots Goree genaamt, gevonden den 24^{e}/Octob^{r} 1685.

Sempervivum spinosum, was found in rocky and sandy places near the Copper mountains and is called by the Hottentots Goree,† found 24th October 1685.

[N. L. Burman.] Aloe capensis valde aculeata. Petiv. Gazoph. Tab. 88, Fig. 2.

---

* Waterhouse (1924, p. 309 and 1932, p. 161) translates: ". . . . with a great level section which cuts through the above-mentioned lode for fully 2 to 2½ rods in depth . . . ."; which is neither correct nor sensible.

† "The Aloe or Goree plant . . . ." O. F. Mentzel, Cape of Good Hope, ii, 1787. Van Riebeeck Society Public. No. 25. Engl. translation. Author's preface, p. 2, 1944.

FOL. 9. (=T.C.D. 811) Plate II.

a. Burman's illustration, reversed in printing, is a very close copy of S.A.M., with the same number of leaf-whorls (36) arranged in the same manner. T.C.D. has more numerous (40) whorls, differently arranged, rootlets arising from top of root-stock, but none from extreme base. S.A.P.L. has rootlets arising from top and bottom of root-stock, and also from the constriction near base.

b. (=T.C.D. 812).

Dese Wortel van een angename smaeck is wind-brekende en/'t water afsettende, bÿ de inwoonders in groot gebruik, de bladeren/ daer af zÿn van een sterke reuk, gelÿkende naer de reuk en/smaek van Peterselie, wast op vette grond, en oude kralen,/langs de Berg-rivier, word van de Inwoonders Chamare ge-/noemt ; gevonden den 1 Septemb : 1685.

This root of a pleasant taste is carminative and diuretic, much used by the inhabitants, the leaves have a strong smell like the smell and taste of parsley, grows on fertile soil and old kraals along the Berg River, is called by the inhabitants Chamare ; found 1 September 1685.

[N.L.B.] Apium radice crassa aromatica, foliolis linearibus collectis. Burm. Dec. pl. Africa. pag. 197, Tab. 72, Fig. 1.

Burman gives an almost literal Latin translation of the Dutch text " ex annotatis in *Cod. Wits.* . . . " (with this exception " . . . locis humidis ac pinguibus ").

The T.C.D. text, as reproduced by Waterhouse, has " af*l*ettende " S.A.M. has quite distinctly " af*s*ettende." Cf. fol. 113 and T.C.D. 826, where both texts have " afte*s*etten."

FOL. 11. (Not in T.C.D.) Plate II.

b. Dit onbekende kruÿdjen, angenaem van reuk, wast op/sommige vogtige plaatsen, kruipende langs de grond, gelÿk/een convolvulus, waer onder het ook sal kunnen gereeckent/werden is gevonden den 10 Septemb : 1685.

This unknown weed, of a pleasant smell, grows in some dampish places, creeping along the ground like a Convolvulus, under which it may in fact be classified, was found on 10 September 1685.

FOL. 13. (Not in T.C.D.) Plate II.

a. Burman's illustration, reversed, but with 10 " lobes ", is an almost exact copy.

b. Dit gewas van binnen vervult zÿnde, met een brak en/suiragtig vogt ofte slÿm, eenigsins bekwaam, in de grootste/nood de dorst te verslaen, maer van een schadelÿke con-/sequentie, vermits 't groote pÿn in de buik veroorsaeckt,/wast an brakke en soutagtige valeÿn, doorgaans in 't land/der Namaquas, en is gevonden den 10 Decemb : 1685.

This growth filled with a brack and sour juice or slime, somewhat pleasant, useful in direst necessity to slake thirst, but with harmful consequences because it causes great pain in the stomach, grows in brack and salt-pan-like valleys throughout the country of the Namaquas, and was found 10 December 1685.

[N.L.B.] Lÿcoperdastrum soboliferum, altius radicatum, glabrum, oblongum, viride. Burm. Dec. pl. Africa. pag. 22. Tab. 10., Fig. 2.

FOL. 15. (Not in T.C.D.). Plate II.

a. Tachard's picture, reversed, is similar but more stylishly executed ; both have one open flower and three buds, but the bent leaf is more undulate in Tachard.

b. Dit is de twede soorte van der Hottentoten haare/Gambrÿ, maer onbekwaam om te gebruicken, wast an di-/versche plaatsen, en van ons geobserveert den 10 Septemb :/1685.

This is the second kind of the Hottentots' Gambry, but unpleasant to use, grows in various places, and was observed by us on 10 September 1685.

[N.L.B.] Ornithogalum bifolium, foliis subulatis, floribus comosis. The first kind of Gambry is not mentioned as such, but fol. 67 (T.C.D. 849) depicts another bulb with the same native name.

FOL. 17. (Not in T.C.D.) Plate II.

b. Dit kruid is een soorte van Ezula, met een seer cor-/rosÿv sap, gevonden den 19^{e} Septemb : 1685.

This plant is a kind of Ezula*, with a very corrosive sap, found 19th September 1685.

[N.L.B.] Euphorbium luteum, squamis hamatis. Petiv. Gazoph. Tab. 86, Fig. 6.

Euphorbium caule rotundo, foliolis hamatis flore quadrifido flavo. Burm. Dec. pl. Afric. pag. 14. Tab. 6, Fig. 3.*

---

* Engl. Spurge, Germ. Wolfsmilch. See : Dodonaeus, Cruydtboeck, pp. 659*b*, 660. Leyden, 1608.

FOL. 19. (Not in T.C.D.) Plate II.

a. Burman's figure is a copy, reversed, with the same number of divisons in the leaves, and the same number of ray florets. Tachard's figure, also reversed, has the bud (or unripe fruit) on a stalk arising halfway along the main stalk bearing the open flower, the latter having more numerous ray florets.

b. Dese bloeme van een angename reuk, verwarmende, ende/bekwaam in stovingen te gebruicken, word van de Inwonders/Cabaröe genoemt, is gevonden den 4^e Septemb : 1685.

This flower of a pleasant smell, " calefaciens, et fomentis optime inservire possit ", called by the inhabitants Cabaröe, was found 4th September 1685.

[N.L.B.] Tagetes foliis instar cornu cervi divisis, flore sulphureo, reflexo. Burm. Dec. pl. Afric. p. 166, Tab. 60, Fig. 2.

Burman says " de hoc flore in *Cod. Wits.* notatur . . . " and quotes (in latin) the whole of the above text.

FOL. 21. (Not in T.C.D.) Plate II.

a. Tachard's illustration is more elaborate, with 20 flower stalks, mostly with open flowers, and numerous rootlets.

b. Dese seer schoone Bloeme word langs de berg-rivier, en an/vele plaatsen omtrent de Caab gevonden en bloeÿt in Janu-/ario.

This very pretty flower is found along the Berg River and in many places around the Cape, and blooms in January.

[N.L.B.] Brunswigia umbellata carnea, cujus rubram speciem descripsit Heisterus in peculiari tractatu, qui primus hisce plantis Brunswigia nomen imposuit, in honorem ducis Brunswigensis.†

* The second half of Burman's descriptive note (p. 14) is worth quoting in full : " Esula succo viroso haec in *Cod. Wits.* altero vocatur ; qui codex octuoginta circiter continet plantas elegantissime depictas naturalibus & vivis coloribus plantarumque partibus separatis, sed quae a *Pluknetio & Petiverio* omnes jam fere sunt delineatae, ita ut hi auctores & similem codicem forte ab eodem pictore elaboratum acceperint ; Figurae enim plantarum simili modo eademque forma delineatae in tribus his auctoribus occurrunt. hanc autem *Petiv.* tantum habet in *Gazophyl. Tab.* 86, *Fig.* 6, ubi vocatur Euphorbium luteum, squamis hamatis. Has duas rarissimas plantas [i.e. fols. 25 and 17, Burman, Tab. vi. Figs. 2 and 3.] hic exponere volui, & vacuo Tabula loco insculpi, quum nondum descriptae occurrerent, & *Gazophyl. Petiverianum* in paucissimorum tantum manibus versetur."

† Heister, L. 1683-1758.

Descriptio novi generis Plantae . . . . Africanae ex Bulbosarum Classe, cui . . . Brunsvigiae . . . nomen imposuit. In qua simul multae botanicorum quorundam hallucinationes indicantur et emendatur. Brunsvigae, 1753.

Beschreibung eines neuen Geschlechts von einer . . . Afrikanischen Pflanze . . . welche . . . den Namen Brunsvigia beygeleget . . . . Braunschweig, 1755.

The date of publication of *Brunsvigia* is given in Kew Index as 1755, not 1753.

Fol. 23. (Not in T.C.D.) Plate III.

b. Dit is een soorte van Trifolium of drie-blad en is gevonden/den 1^{e} Septemb^{r} 1685.

This is a kind of Trifolium or trefoil and was found 1st September 1685.

[N.L.B.] Sinapistrum triphylleum, seu Cleome Linneei.

FOL. 25. (Not in T.C.D.). Plate III.

a. Burman's figure, reversed, resembles S.A.M., but latter has one extra leaf at bottom of shoot, and lacks the one seed shown separately.

b. Dit kruÿd word genoemt Anteuphorbium, en is gevonden den/ 21 7b : 1685.

This plant is called Anteuphorbium, and was found 21st September 1685.

[N.L.B.] Euphorbium Ficoidis folio. Petiv. Gazoph. Tab. 90, Fig. 3. Euphorbium erectum caule simplici rotundo foliis triangularibus obpositis acutis. Burm. Dec. pl. Afric. pag. 13, Tab. 6, Fig. 2.

Burman (p. 13): ". . . . in *Cod. Wits.* Anteuphorbium haec planta vocatur : quae insculpta solummodo invenitur in rarissimo illo exoticarum opere *Petiver. Gazophyl. nat. & art.*, Tab. 90, Fig. 3, ubi Euphorbium Ficoidis folio dicitur."

FOL. 27. (Not in T.C.D.). Plate III.

a. Burman's figure, reversed, is a very accurate copy of S.A.M., even to the number (11) of bracts below the flower-head. Tachard's figure, also reversed, is similar but the central flower projects above tke buds, the fruit is undulate throughout (not merely at tip as in S.A.M. and Burman), 9 bracts, and numerous fine rootlets on the main forked root.

b. Dit kruid is een soorte van Geranium, radice esculenta/of met een eetbare wortel, word van de Inwoonders Heÿn-/tame genoemt, is gevonden den 13 Septemb : 1685.

This plant is a kind of Geranium, radice esculenta, i.e. with an edible root, by the inhabitants called Heÿntame, was found 13 September 1685.

[N.L.B.] Pelargonium rapaceum bifolium floribus maculatis. Burm. Dec. pl. Afric. pag. 90, Tab. 35, Fig. 1.

FOL. 29. (Not in T.C.D.). Plate III.

b. Dese boom word an groote noÿt boven de 6 â 8 voeten ge-/vonden,

de vrugt daer af is niet bekwaam voor menschen,/maer 't saet daer in besloten, word soo veel te vlÿtiger/van de vogelties gesogt ; wast op hooge bergen, tusschen/de klippen, is gevonden den 13 7b : 1685.

This tree was not found greater than 6 to 8 feet in height, its fruit is not suitable for men, but the seeds enclosed therein are sought as much as possible by the birds ; grows on high mountains between the rocks, was found 13th September 1685.

[N.L.B.] Cerasus [written over the name Ficus] Africana, fructu coeruleo, folio longiore & angustiore.

FOL. 31. (Not in T.C.D.). Plate II.

b. Dit is een soorte van Genista met een Purpere bloem, gevonden den 2^{e} Septemb^{r} 1685.

This is a kind of Genista [Gorse] with a purple flower, found 2nd September 1685.

[N.L.B.] Genisto-Spartium Africanum, Ericae folio, floribus dilute purpureis.

FOL. 33. (=T.C.D. 813). Plate III.

a. Only 8 leaves instead of 11 shown in T.C.D., and arranged differently, only one fruit on left, no section of fruit ; the full view of flower shows 8 white " petals."

b. (=T.C.D. 814).

Dese Heester wast op Steenagtige plaatsen, de Vrugt daer/ af is in 't begin van smaek als een kruÿtnageltie, maer groot/werdende, begint deselve scherp te branden, niet wÿkende de/Castiliaansche Peper, onder welker soorten het ook sal kunne/gereeckent werden, wast langs, of omtrent de Olÿphants-/rivier, gevonden den 15^{e} en 16^{e} 7b:^{r} 1685.

This shrub grows on stony places, its fruit when small tastes like a clove, but when larger has a sharp burning taste not unlike Castilian pepper, as a kind of which it can be classified, grows along or in the neighbourhood of the Olifants River, found 15th and 16th September 1685.

[N.L.B.] Epidendron Lÿchnidis flore Africanum. Pluken. Phyt. Tab. 174, Fig. 7.

FOL. 35. (=T.C.D. 861.). Plate IV.

b. (=T.C.D. 862.).

Dese Heester is een onbekende soorte van Ezula, met een/scherpe

corrosive melk, is nergens te vinden als op eenige/plaatsen langs de Olÿphants rivier, en gevonden den/15 Septemb : 1685.

This shrub is an unknown kind of Ezula, with a sharp corrosive milk [latex], is only to be found in some places along the Olifants River, found 15 September 1685.

[N.L.B.] Tithÿmalus Africanus arborescens squammato caule spinosus. Pluken. Phyt. Tab. 230, Fig. 5, &c.

T.C.D. 861 is reproduced in White, Dyer, & Sloane, Succulent Euphorbieae, i. fig. 262. 1941. (*E. loricata* Haw.).

FOL. 37. (=T.C.D. 835.). Plate III.

a. Tachard has 3 long leaves but only 6 short ones, 1 bud, 1 partly opened flower and 1 fully opened flower very similar to S.A.M., but reversed. S.A.P.L. B4 is beautifully coloured.

b. (=T.C.D. 836).

Dese welriekende bloeme komt voort uÿt een bolletie,/'t welk gebraden zÿnde soet en angenaem van smaek/is, maer veel daer af gegeten veroorsaect harde ver-/stoppingen in de buik, en is een ordinaris kostje voor/de inwoonders, is gevonden den 3 Septembr 1685.

This sweet-smelling flower comes out of a bulb which when baked has a sweet and pleasant flavour, but if eaten in quantity causes constipation, is a common food of the inhabitants, found 3 September 1685.

[N.L.B.] Sisÿnrichium Africanum tricolor, caule nodoso angustifolium. Pluken. Phyt., Tab. 224, Fig. 7.

Croco affinis Capensis tricolor, caule nodoso. Petiv. Gazoph. Tab. 58, Fig. 3.

FOL. 39. (=T.C.D. 857). Plate V.

a. Tachard's figure is very similar in arrangement of leaves and flowers, but embellished with numerous rootlets on the stock and roots. Burman's figure (Tab. 19, Fig. 1) is an exact copy of S.A.M., improved by the engraver and reversed. T.C.D. has the flowers arranged differently, and one leaf cut to show cross-section.

b. (=T.C.D. 858).

Desen soorte van Sedum of Donderbaard, word gevonden/an steenagtige en sandige plaatsen van het lage land-/der Namaquas na de Zee-strand, word van de In-/woonders Kebeep genoemt, gevonden den 12 10 br 1685.

This kind of Sedum or Stonecrop was found on stony and sandy places in the country of the Namaquas near the sea-coast, is called by the inhabitants Kebeep, found 12 December 1685.

[N.L.B.] Sedum Africanum terebifolium, flore Hermocallidis. Pluken. Phyt. Tab. 223, Fig. 1.
Aloe Cepae folio. Petiv. Gazoph. Tab. 89, Fig. 2.

FOL. 41. (=T.C.D. 821). Plate V.

a. Tachard is similar to S.A.M., but reversed, and with shorter uncut stem. S.A.M. and Tachard both have 3, instead of 4 as in T.C.D., leaves on either side of stem. Five flowers, 3 on left, 2 on right, lower one on each side open, closer together than in Tachard. S.A.P.L. B2 also has 3 flowers on left, 2 on right. S.A.M. has the leaves grass-green, but S.A.P.L. has them glaucous green, thus much nearer the natural colour.

b. (=T.C.D. 822).
Dese soorte van Semper Vivum wast op klip-agtige/plaatsen in 't land der Namaquas, en van deselve Dgoree/genoemt, gevonden den 16 Octob^r 1685.
This kind of Sempervivum grows on rocky places in the country of the Namaquas and by the same called Dgoree, found 16 October 1685.
[N.L.B.] Aloe Africana vulgaris, similis, floribus rubris & paucioribus. Pluken. Phyt. Tab. 129, Fig. 1.
Aloe maculata laevis. Petiv. Gazoph. Tab. 88, Fig. 2. [sic, *laps. cal.* for 1.]

FOL. 43. (=T.C.D. 785). Plate V.

a. Tachard is similar to S.A.M., but reversed and with 4 instead of 5 leaves. T.C.D. has 5 leaves, veined, and 3 flowers.

b. (=T.C.D. 786).
Dese angename welriekende bloeme komt voor uÿt/een bolletie, 't welk soet en angenaem van smaak, en/wat adstringerende is, dient an de Inwoonders alhier voor/een gemene mondcost, wast op goede en vette grond langs/de picket-berg, word van haerlieden Cabung genaamt,/gevonden den 3 Septemb^r 1685.

This pleasant smelling flower comes out of a bulb, which is of a sweet and pleasant taste, and astringent, serves the inhabitants everywhere as a general food, grows on good and fertile soil along the Picket-berg, called Cabung by the local people, found 3 September 1685.

[N.L.B.] Sisÿnrichium Africanum trianthophorum. Pluken. Phyt. Tab. 225, Fig. 1.
Sisÿnrichium trianthos umbellatum. Petiv. Gazoph. Tab. 85, Fig. 2.

FOL. 45. (=T.C.D. 805). Plate III.

a. Very crude in comparison with T.C.D. The 5 flowers are drab with blue centres, buds and roots green. S.A.P.L. B10 has the flowers pale blue.

b. (=T.C.D. 806).
Species Linariae met angename welriekende blauwe/bloemties, wast op sandige grond langs die Picquet-/-berg, gevonden den 13^{e} Septemb : 1685.
A species of Linaria with pretty sweet-smelling blue flowers, grows on sandy ground along the Picquet-berg, found 13th September 1685.
[N.L.B.] Leucojum Africanum flore Lini coerulei, molluginis folio. D. Hermans. Pluken. Phyt. Tab. 200, Fig. 3.

FOL. 47, numbered 44. (=T.C.D. 803). Plate III.

a. One green, one brown seed-pod. The arrangement of the leaves is different (less spread out) from T.C.D., and the latter has only one seed-pod.

b. (=T.C.D. 804).
Species Cÿtisi arborescentis met gele bloemen, wast/langs de berg-rivier, gevonden den 31 Augusti 1685.
A species of arborescent Cytisus [broom] with yellow flowers, grows along the Berg River, found 31 August 1685.
[N.L.B.] Anagÿris flore luteo, angustis siliquas Africana. Pluken. Phyt. Tab. 133, Fig. 6.
Anagÿris Capensis, luteus, foliis acutis. Petiv. Gazoph. Tab. 83, Fig. 7.

FOL. 49, numbered 46. (=T.C.D. 809). Plate IV.

b. (=T.C.D. 810).
Dese boom van tamelÿke groote, groeÿt in de scheuren/en kloven van rotsen en klippen, draegt een vrugt/van wegen haer wonderlÿke smaek onbequaem voor/de menschen, maer niet van de kleÿne vogelties, werd/op diversche plaatsen van 't land der Namaquas gevon-/den, en van haer Cargosangk genaemt, is gevonden/den 6^{e} Janÿ 1685.

This tree of moderate size grows in the fissures and clefts of rocks and stones, bears a fruit which in spite of its wonderful taste is unsuitable for man, but not for the little birds, was found in various places in the country of the Namaquas, called by them Cargosangk, found 6th January, 1685.

[N.L.B.] Cerasus Africana fructu coeruleo. Pluken. Phyt. Tab. 157, Fig. 5.
Cerasus capensis fructu coeruleo. Petiv. Gazoph. Tab. 57, Fig. 5.

FOL. 51, numbered 47. (=T.C.D. 815). Plate IV.

a. Tachard, reversed, is very similar but the two basal pairs of leaves and the next pair are omitted. S.A.P.L. B5 has the top flower in side view, the one on the left in front view. Burman has taken S.A.M. fol. 89 (66) as his copy for this species. Named in the lower-right-hand corner *Nemesia* in Dr. Pappe's neat handwriting.*

b. (=T.C.D. 816).
Species Pensees gevonden den 11 Septemb^r 1685.
A species of Pansy, found 11 September, 1685.
[N.L.B.] Violae surrectae affinis, Pinguiculae facie. Capitis Bonae Spei. Pluken. Phyt. Tab. 134 [sic, *laps. cal.* for 234], Fig. 5.
Trientalis Capensis Dracocephali folio. Petiv. Gazoph. Tab. 58, Fig. 1.
Pinguicula foliis obpositis dentatis, floribus corniculatis. Burm. Dec. pl. Afric. pag. 106, Tab. 60 [sic, *laps. cal.* for 40], Fig. 3.

FOL. 53, numbered 48. (=T.C.D. 795). Plate V.

a. S.A.M. has pink-spotted flower-stalk, and bracts arising from bulb at base of stem.

b. (=T.C.D. 796).
Species Hÿacinthi gevonden den 8 Septemb^r 1685.
A species of Hyacinth found 8 September, 1685.
[N.L.B.] Hÿacinthus Africanus Orchioides Serpentarius, folio singulari undato, pilis ciliaribus fimbriato, floribus ex aureo punicantibus. Pluken. Phyt. Tab. 195, Fig. 5, Petiv. Gazoph. Tab. 87, Fig. 8.
Petiver described this as "Comptonia Capensis lutea, monophylla, crispa" in honour of Bishop Compton. See also fol. 117 (80).

---

* C. W. L. Pappe, 1802-1862. Colonial Botanist at the Cape. Trustee of the South African Museum, 1855-1862.

FOL. 55, numbered 49. (=T.C.D. 801). Plate V.

a. Tachard similar to S.A.M., reversed, the 2 bent leaves stouter. S.A.P.L. B17 has the flowers coloured crimson.

b. (=T.C.D. 802).

Aquilegia ofte Akoleÿe met een purpere bloem,/en eetbare wortel, is gevonden den 11 7b^{r} 1685.

Aquilegia or Columbine with a purple flower and edible root, found 11 September, 1685.

[N.L.B.] Gladiolus Africanus angustissimo folio, dilute purpurascens. Pluken. Phyt. Tab. 187, Fig. 4.

Gladiolus capensis purpureus, floribus uno versu dispositis. Petiv. Gazoph. Tab. 87, Fig. 1.

FOL. 57, numbered 50. (=T.C.D. 867). Plate V.

b. (=T.C.D. 828).

Geranium Columbinum, met schone rode bloemen,/werd gevonden omtrent de Berg-Fontein, den 13^{e}/Septemb : 1685.

Geranium Columbinum with beautiful red flowers was found around the Berg-fontein 13th September, 1685.*

[N.L.B.] Geranium Africanum noctu olens ruberrimo Anemones folio latiore. Pluken. Phyt. Tab. 186, Fig. 5.

Geranium auric : Arthemisiae folio, fl. sanguineo Petiv. Gazoph. Tab. 84, Fig. 9.

The pictures and notes of this folio and fol. 119 (81) have been transposed in T.C.D. and S.A.M. ; as was quite likely to happen in the case of two such similar plants if one or more copyists were working from the originals. S.A.P.L. B15 has picture and text corresponding with T.C.D. 827, 828.

FOL. 59, numbered 51. (=T.C.D. 855), Plate IV.

a. Tachard is more like S.A.M. than T.C.D., reversed, with only three sprays of leaves.

b. (=T.C.D. 856).

Dit gewas werd op sandige plaatsen gevonden de vrugt/daer af :/: welke in drie deelen bestaat, en gelÿk als in/een blaas, als den Alkekengi besloten leÿd :/: is van/een bittere en adstringerende smaeck, desselvs krag-/ten zÿn tot nog toe onbekent, word gevonden

* Berg- or Bergh-Fontein. The Journal (T.C.D.) says the place was called after Lt. Bergh. See : Journal of Olaf Bergh. Van Riebeeck Society, Public. No. 12, 1931, 1st Journey, footnote 17.

an 't/gebergte van de Sand-rivier, en van de Inwoonders/Samoe genaemt : Den 4 Novemb : 1685.

This plant was found in sandy places, the fruit thereof, which is tripartite and enclosed as in a bladder, like the Alkekengi*, has a bitter and astringent flavour, whose properties are as yet unknown, was found on the mountains near the Sand River, and called by the inhabitants Samoe ; 4 November, 1685.

[N.L.B.] Arbor Ingae Brasilianae foliis Africana tricoccos, fructu Nehebethene Cortusi Clusio accedente Pluken. Phyt. Tab. 144, Fig. 2.

Ingae folio capensis, fructu triangulo, tricocco. Petiv. Gazoph. Tab. 57, Fig. 1.

T.C.D. has " . . . . syn vrught bestaat in drien en is gelyck de Alkekengi in een *claas* besloten . . . . " [ital. mine], which Waterhouse translates : " Its fruit grows in threes and is in one *class* with the Alkekengi." A glance at the picture of the triloculate, *bladder*-like fruit shows that Waterhouse has misread the original text.

FOL. 61, numbered 52. (=T.C.D. 859). Plate IV.

b. (=T.C.D. 860).

Dese Convolvulus Spinosus is een soorte van Ezula,/geest een seer scherpe corrosive melk van hem, word/gevonden an Steenagtige plaatsen langs de Olÿ-/phants-rivier, den 20^{e} Septemb^{r} 1685.

This spiny Convolvulus is a kind of Ezula, exudes a very sharp corrosive milk [latex], found in stony places along the Olifants River, 20th September, 1685.

[N.L.B.] Volubilis Africana fructu tetragono, Smilaci similis, viticulis aspera, foliis medio aculeatis, & in capreolatum mucronem circumvolutis. Pluken. Phyt. Tab. 236, Fig. 6. cujus haec est varietas.

Smilax capensis fructu trigono, folio viticulo terminante. Petiv. Gazoph. Tab. 58, Fig. 4.

FOL. 63, numbered 53. (=T.C.D. 799). Plate VI.

b. (=T.C.D. 800). Plate XII.

Aloë Arborescens. Dese vreemde Aloë-boom, wiens stam/

---

* French : Alquequanges, =*Physalis*. See : Dodonaeus, p. 810*a*. R. Dodoens (Dodonaeus) 1517-1585.

Cruÿdtboeck van Dodonaeus, met Beschriivinge van de Indiaensche . . . . . Boomen . . . . die van Dodonaeus niet vermaent oft niet beschreven . . . . [van C. Clusius]. Leyden, 1608.

A copy of this book is in the Koopmans de Wet Museum, Cape Town.

altemets boven 2 vaam in de rondte is, geest een/schoon helder sap, en in groote menigte, waer uÿt het/Gummi Aloës seer schoon in abundantie soude kun-/nen gemaect werden, de schors van de boom is vrÿ/hard, maer het binnenste is geheel Spongieus en/ligt. Uÿt dese boom vervaerdigen de Inwoonders haer/Pÿlkokers, want een tak daer af, van bekwame dicte,/hollen sÿ uÿt, dat niet daer an blÿvt als de schorse,/dewelke seer hard en taeÿ is, en op de eene sÿde trec-/ken sÿ een stuk leer daer over, als dan is de koker/ver-vaerdigt. De Inwoonders noemen dese boom Choje,/en is gevonden den 15 Octob : 1685.

Aloe Arborescens. This strange Aloe-tree, whose stem is often over 2 fathoms in circumference, exudes a nice clear sap in large quantities, from which Gummi Aloes could be made very easily in abundance, the bark of the tree is hard, but the inside is throughout spongy and light. From this tree the inhabitants fashion their quivers, they break off a branch of suitable thickness, hollow it out so that only the bark remains, which is very hard and tough, draw a piece of leather over one end, and the quiver is finished. The inhabitants call this tree Choje, and [it] was found 15 October, 1685.

[N.L.B.] Aloë Spinosa arborescens ramosa, Promontorii Bonae Spei. Pluk. Phyt. Tab. 129, Fig. 4.

Aloe capensis arbor ramosa. Petiv. Gazoph. Tab. 87, Fig. 9.

S.A.P.L. B23 has a Dutch description almost the same as S.A.M. with only slight verbal differences, e.g. " . . . waar uÿt de gom aloe seer schoon in abundantie . . . " ; also " light " in place of " ligt."

FOL. 65, numbered 54. (=T.C.D. 845). Plate VI.

b. (=T.C.D. 846).

Dit is de twede soorte van Aloë Arborescens, an/bladeren en vrugt met de andere over-een-ko-/mende, heeft ook bÿ de Inwoonders deselve bÿna-/minge, is gevonden den 30 Octob : 1685.

This is the second kind of Aloe Arborescens, resembling the other in leaves and fruit, also called by the same name by the inhabitants, found 30 October, 1685.

[N.L.B.] Aloe caulescens foliis reflexis, margine spinosis Africana. Pluken. Phyt. Tab. 129, Fig. 3.

Aloe capensis, arbor non ramosa. Petiv. Gazoph. Tab. 88, Fig. 3.

FOL. 67, numbered 55. (=T.C.D. 849). Plate IV.

a. Tachard has one bent and 2 straight leaves like S.A.M., but reversed, flower-stalk uncut but not projecting beyond the leaves.

b. (=T.C.D. 850).

Dit gewas groeÿt bÿ de 4 of 5 voeten hoog op Steen-agti-/ge plaatsen, de steel aldernaest de wortel is vervult/met een groote menigte soet-agtig schlÿm, word van de/inwoonders als haer de dorst plaegt gekaut, en 't sap/uÿtgesogen, heeft een wonderlÿke kragt om den mond/te ververschen, en te verkoelen, wast op diversche plaatsen/ word van de Inwoonders genoemt Gambrÿ, en is ge-/vonden den 12 Septemb : 1685.

This plant grows 4 or 5 feet high on stony places, the stem next the root is filled with a large quantity of sweetish juice, chewed by the inhabitants when suffering from thirst, and the juice sucked out has a wonderful power of freshening and cooling the mouth, grows in various places, called Gambry by the inhabitants, found 12 September, 1685.

[N.L.B.] Ornithogalum Africanum luteum odoratum, foliis cepaceis radice tuberosa. H. Leid. page. 466.
Pluken. Almag. pag. 272, male : nam est.
Ephemerum Phalangoides erectum, foliis liliaceis, bulbosum, flore flavescente, Capitis Bonae Spei. Pluken. Phyt. Tab. 174, Fig. 6.
Ornithogalum flavescente flore. Petiv. Tab. 87, Fig. 6.

FOL. 69, numbered 56. (=T.C.D. 833). Plate IV.

a. Tachard has 3 fruits, but is not quite like either S.A.M. or T.C.D.

b. (=T.C.D. 834).

Dese Heester word gevonden in 't land der Namaqua/op klip en sand-agtige plaatsen, brengt voort een an-/gename vrugt, an gedaente enigsints, maer an smaek/ten eenemael de Indiaensche Vrugt Kauki gelÿkende, is seer stoppende, en heeft die-gene, die alteveel daer/af eet, ligtelÿk eenig ongemak van hardlÿvrigheÿt te/verwagten, word van de Inwoonders Kannobe genoemt. Den 15 Octob : 1685.

This shrub is found in the country of the Namaquas on stony and sandy places, bears a pleasant fruit, at least in appearance, but in taste quite like the Indian fruit Kauki*, is very constipating, and those who eat too much of it may well expect to suffer from

---

*Kaki, the Indian name for the Persimmon (*Diospyros kaki*). Same family (*Ebenaceae*) as *Royena*. [Editor.]

obstruction, called Kannobe by the inhabitants. 15 October, 1685.

[N.L.B.] Cerasus Africana, fructu rubro simplici, folio breviore monococcos. Pluken. Phyt. Tab. 158, Fig. 5.

Cerasus capensis fructu rubro singulari. Petiv. Tab. 87, Fig. 12.

FOL. 71, numbered 57. (=T.C.D. 865). Plate VI.

a. Fruits coloured scarlet.

b. (=T.C.D. 866).

Dese Heester groeÿt an veele dorre en sandige plaatsen,/draegt een soorte van kerssen, aangenaem en wat rinsch/van smaeck, gesond en verkoelende, komende de reÿsende/en van dorst smagtelose menschen, om haren mond te/ververschen en dorst te lesschen seer wel te pas. word/bÿ de Inwoonders genaemt Cargoe, gevonden den 12^{e}/Septemb : 1685.

This shrub grows in many barren and sandy places, bears a kind of cherry, pleasant and somewhat acid in flavour, healthy and cooling, very useful to travellers and others with parched tongues to freshen the mouth and quench thirst, is called by the inhabitants Cargoe, found 12th September, 1685.

[N.L.B.] Genisto-Spartium bacciferum Ericae foliis Africanum. Pluken. Phyt. Tab. 185, Fig. 6.

Spartio affinis Baccifera Ericae folio. [sc. Petiv.] Tab. 83, Fig. 9.

T.C.D. has " . . . . die de gesonde verkoelt . . . ", translated as " cooling to a healthy man." The S.A.M. version is far more sensible.

FOL. 73, numbered 58. (=T.C.D. 839). Plate IV.

a. Tachard very similar to S.A.M., reversed, with veined leaves, and flowers carefully drawn (even more artistically and less conventionally than in T.C.D.).

b. (=T.C.D. 840).

Dit welriekende bloemtien, komt voort uÿt een kleÿn/bolleken, 't welk als het in de assche gebraden, soet en/angenaem van smaeck is, dient an de Inwoonders voor/een ordinarie kostjen, en word van kaer gen^{t} Chabÿ/gevonden den 9 and 10 Septemb : 1685.

This pleasant-smelling flower grows out of a small bulb, which when baked in the ashes has a sweet and pleasant flavour, is a common food of the inhabitants and is called by them Chaby, found 9 and 10 September, 1685.

[N.L.B.] Hÿacinthus spicatus stellatus, floribus incarnatis, caule

& folio Orchidis ex Promontorio Bonae Spei. Pluken. Phyt. Tab. 195, Fig. 4.

Ornithogalum spicatum flore incarnato. Petiv. Gazoph. Tab. 85, Fig. 3.

[A later entry in blacker ink may perhaps be in the handwriting of N. L. Burman, filius :]

Melanthium ciliatum Thunb. et Linn. (?).

Thunb. Diss. Acad. v. 2. p. 396. Linn. Suppl. Plant. p. 213. Syst. Veget. xiv. p. 349 per Gmel. p. 587.

Cf. T.C.D. 786 which has very similar text with the same native name and date 10th September ; whereas T.C.D. 840 is mostly different and with date 13th September.

FOL. 75, numbered 59. (=T.C.D. 787). Plate VI.

a. Apparently a circular white flower surrounded by 8 projections resembling sepals. T.C.D. gives the same impression, but has only 6 projections. S.A.P.L. B27, however, shows that these projections were intended to represent ordinary leaves.

b. (=T.C.D. 788).

Dit is de :/: van de Namaqua en ook andere volken/alhier :/: beroemde Kanna, dewelke sÿ dagelÿx, gelÿk/de Indianen den Areek, in de mond dragen en knauen,/en die sulx veel doen, konnen gemakkelÿk daer af/dronken worden, is bÿ haer in grote aestime, gelÿk/alle dingen, dewelke de geesten van het hooft cor-/rumperen, en dronken maken : En datter eenige bÿ-/sonderheden in dese plante zÿn, blÿct niet alleen/uÿt hare werkinge, maer ook haer angename en/Cordiale smaek, word nergens gevonden als alleen op eenige/bergen der Lands der Namaquas en in Octob : ingesa-/melt ; gevonden den 20 Octob : 1685.

This is the—among the Namaquas and other local tribes—far-famed Kanna, which they habitually carry in the mouth and chew, as do the Indians the Areca [Betel-nut], and as it easily makes them drunk if they take much of it, it is much esteemed by them, like all things which corrupt the senses and inebriate. And that there are several peculiarities in this plant is shown not only by its effects, but also by its pleasant and cordial taste ; was found only in certain mountains in the country of the Namaquas and collected in October ; found 20th October, 1685.

[N.L.B.] Bellis ramosa umbellifera Cornuti Pluken. Phyt. Tab. 150, Fig. 3. Bellis major ramosa umbellifera Americana. Parkins. male scriptum nam est.

Bellis Mÿrtifolia humilis cauliculo ad florem folioso

Promon. Bonae Spei. Pluken. Phyt. Tab. 150, Fig. 2. Petiv. Gazoph. Tab. 83, Fig. 10.

FOL. 77, numbered 60. (=T.C.D. 837). Plate VI.

a. S.A.M. very similar to T.C.D. Tachard, reversed, is almost exactly like S.A.M.

b. (=T.C.D. 838).

Een vreemde onbekende soorte van Ezula Arborescens,/wast op sommige steenagtige plaatsen van de Olÿ-/phants-rivier, gevonden den 4^{e} Jan*ÿ* 1686.

A strange unknown kind of Ezula Arborescens, grows in some stony places near the Olifants River, found 4th January, 1686.

[N.L.B.] Apocÿnum tuberosum angustifolium erectum flore ex luteo virescente, folliculis pubescentibus Africanum Pluken. Phyt. Tab. 137, Fig. 6.

Apocÿnum barbatum fere triphÿllium Petiv. Gazoph. Tab. 84, Fig. 3.

FOL. 79, numbered 61. (=T.C.D. 819). Plate IV.

b. (=T.C.D. 820).

Dese Heester brengt voort een soort van wilde bessen,/eenigsints bekwaam om te eeten, maer seer onbekwaam/en ongesont voor de Maagh, want deselve groote/pÿn in de buik veroorsaken, voornamentlÿk als men/veel daer af gegeten, en eenig water daer op gedron-/ken heeft, word an vele plaatsen gevonden, en van de Inwoonders Thou genaamt, gevonden den 3 Sept :/1685.

This shrub produces a kind of wild currant, pleasant to eat but very unpleasant and unhealthy for the digestion because it causes great pain in the stomach, especially when one has eaten much of it and thereafter drunk water, was found in many places and called by the inhabitants Thou, found 3 September, 1685.

[N.L.B.] Cerasus Africana, foliis plerumque in summo sinuatis, fructu rubro. Pluken. Phyt. Tab. 158, Fig. 2.

Cerasus Capensis fructu rubro, folio fere obtuso Petiv. Gazoph. Tab. 57, Fig. 4.

FOL. 81, numbered 62. (Not in T.C.D.). Plate VI.

b. Dese eetbare en soete wortel word gevonden in sommi-/ge valleÿen lange de picketberg, hebben vermits het nog/te vroeg was, de bloeme niet kunnen bekomen.

This edible and sweet root was found in some valleys along the

Picket Berg, but being too early in the season, we could obtain no flowers.

FOL. 83, numbered 63. (Not in T.C.D.). Plate VI.

a. Burman's figure closely resembles S.A.M., but has only 7 bracts at base of flowers instead of 8. This is one of the more painstakingly executed pictures in S.A.M.

b. Species Dauci seer angenaem van reuk, is een/kostelÿk carminativum, wast op dorre sandige plaat-/sen in 't land der Grigriquas, gevonden den 9 Septemb :/1685.

A species of Daucus [carrot] with very pleasant smell, is a valuable carminative, grows on barren sandy places in the country of the Grigriquas, found 9 September, 1685.

[N.L.B.] Apium foliolis trifidis, dentatus Burm. Dec. pl. Africa. p : 198. Tab. 72, Fig. 2.

Burman says " Flores . . . . quae minus feliciter a pictore in Figura *Wits.* expressa sunt, habetur autem in *Codic. Wits.* tanquam Dauci species jucundi odoris, virtutis carminantis, quae . . . . " etc. as in S.A.M., but with date 7th instead of 9th September.

FOL. 85, numbered 64. (=T.C.D. 869). Plate VI.

a. Burman's illustration, reversed (though with section of tuber on right), is a close copy of S.A.M., leaves not so bunched together. In S.A.P.L. B25 the flowers are crimson.

b. (=T.C.D. 870).

Een soorte van Geranium, met een soete en eetbare wor-/tel, bÿ de inwoonders seer in gebruik, word an diversche/plaatsen gesien en van de Namaquas Heÿntame, en van/de Grigriquas Aree gen^{t} gevonden den 24 7b : 1685.

A kind of Geranium with a sweet and edible root, much used by the inhabitants, was seen at various places, called by the Namaquas Heÿntame, and by the Grigriquas Aree, found 24th September, 1685.

[N.L.B.] Geranium Africanum noctu olens, flore rubro, Anemones folio angustiore. Pluken. Phyt. Tab. 186, Fig. 6, &c. Geranium radice Rapacea, flore sanguineo Petiv. Gazoph. Tab. 84, Fig. ii [=eleven, see Burman, p. 91]

Pelargonium rapaceum, foliis ternis trilobatis & tridentatis flore sanguineo. Burm. Dec. pl. Afric. p. 91, Tab. 35, Fig. 2.

FOL. 87, numbered 65. (Not in T.C.D.). Plate VII.

a. Burman's figure, reversed, is a very close copy of S.A.M., the lowermost leaf on stem bent round evidently to avoid conflicting with the neighbouring illustration. " Haec planta in *Cod. Wits.* eleganter depicta habetur . . . ." and he gives a literal latin translation of the S.A.M. text. The word " eleganter " is well merited, as the picture is one of the best in the S.A.M. volume.

b. Dit onbekent gewas komt voort op dorre sandige plaat-/sen, is angenaem van reuk, en kan wel onder de plantas/Chephalicas gereeckent werden ; gevonden den 12 Septemb :/1685.

This unknown plant grows on barren sandy places, has a pleasant scent, and can well be reckoned as one of the plantae Chephalicae ; found 12th September, 1685.

[N.L.B.] Lÿchnidea foliis ad radicem ternis obpositis, ad caulem solitariis alternis, floribus umbellatis Burm. Dec. pl. Afric. p. 142. Tab. 50, Fig. 3.

FOL. 89, numbered 66. (Not in T.C.D.). Plate VII.

a. Burman's figure, reversed, is a faithful copy of S.A.M., with engraver's embellishments such as venation of leaves.

b. Species Pensees, wast an veele sandige plaatsen, langs/de Berg-rivier, gevonden den 1 7b : 1685.

A species of Pansy, grows in many sandy places along the Berg River, found 1 September, 1685.

[N.L.B.] Vide supra Fig. 47, cujus species est haec planta. Pinguicula foliis obpositis, floribus corniculatis. Burm. Dec. pl. Afric. p. 106. Tab. 40, Fig. 3.

[L. Pappe] Nemesiae species.

FOL. 91, numbered 67. (Not in T.C.D.). Plate V.

a. Burman's figure is a close copy of S.A.M., slightly improved by the engraver. Burman says : " Ex *Cod. Wits.* hanc plantam producimus . . . . de qua dicitur . . . . " with literal translation of the S.A.M. text.

b. Desė Heester van een soetenreuk, bekwaem tot stovingen,/in coude contracturen te gebruicken, gevonden den 12^{e}/Septemb : 1685.

This shrub with a sweet scent, " apta pro cataplasmate in frigidis contracturis " [Burman], found 12th September 1685.

[N.L.B.] Chrÿsanthemoides frutescens, foliis profunde laciniatis & acutedentatis. Burm. Dec. pl. Afric. p. 167. Tab. 60, Fig. 3.

FOL. 93, numbered 68. (=T.C.D. 823). Plate VIII.

a. S.A.M. simpler than T.C.D., only 6 leaves and one bunch of 4 fruits, and veining of leaves not so carefully done.

b. (=T.C.D. 824).

Dese boom komende tot een tamelÿke lengte, is wel/de grootste omtrent de Gewesten der Grigriquas en/Namaquas, hÿ draegt een soorte van bessen, van binnen/vervult met eenig saad, bitter zÿnde, word seer gesogt/van de Vogelties derhalven dese bomen, altÿd met on-/telbare menigte van vogel-nesties, gelÿk als met eenige/vrugten behangen, komen te pronken, word gevonden an/de Olÿphants-rivier den 15 Septemb : 1685.

This tree, reaching a moderate height, is the largest in the district of the Grigriquas and Namaquas, it bears a kind of berry filled with some seeds, bitter, much sought after by birds, in consequence of which these trees are always ornamented with countless numbers of birds' nests, as if festooned with fruits ; was found at the Olifants River 15 September, 1685.

[N.L.B.] Cerasus Africana racemosa, fructu rubro absque pediculis folio longiore & latiore. Pluken. Phyt. Tab. 157, Fig. 3. Cerasus Capensis fructu rubro racemosa. Petiv. Gazoph. Tab. 87, Fig. 10.

FOL. 95, numbered 69. (=T.C.D. 797). Plate V.

a. Bulb, with rootlets, and 2 upstanding bracts at base of the short stalk. T.C.D. having no rootlets looks more like a fruit, and was identified at Kew as "*Solanum* sp. fruit." Waterhouse could have prevented this somewhat egregious mistake by submitting, with the photograph of the picture, a copy of the accompanying text in which the object is stated to be a bulb. S.A.P.L. B36 also has no rootlets.

b. (=T.C.D. 798).

Dese wortel of bolle van een soete en angename smaek,/wast op sandige grond, hebben varmits het laet in 't jaer/waer, de gedaante van hare bladeren en bloemen niet/kunnen bekomen, word van de Inlanders Haro gen^t/gevonden den 1 Decemb : 1685.

This root or bulb with a sweet and pleasant flavour grows on sandy ground ; owing to its being late in the year we could not obtain sight of the leaves and flowers, called by the inlanders Haro, found 1 December, 1685.

FOL. 97, numbered 70. (=T.C.D. 841). Plate VII.

b. (=T.C.D. 842).

Dit aensienlÿk gewas, 't welk altemets boven een/mans lengte uÿtwast, is een vremde soorte van/Ezula, word op vogte plaatsen

gevonden, dog seer/selden; Dese plante is agter den Steenberg van den/Ed: H^r Commandeur op den 30 Jan$\ddot{y}$ 1686 gevonden.
This fair-sized plant, which may often exceed a man's height, is a strange kind of Ezula, was found in damp places, but very seldom; this plant was found at the back of the Steenberg by the Hon. Commander on 30 January, 1686.

[N.L.B.] Apocÿnum Africanum tuberosum, latiore folio erectum, folliculis hirsutis, flore pallida punicante. Pluken. Phyt. Tab. 139, Fig. 1.
Apocÿnum Capense Lauri folio venoso, fructu barbato. Petiv. Gazoph. Tab. 84, Fig. 1.

This picture does not actually belong to the collection made on the Namaqualand expedition as the plant was found after van der Stel returned. The Steenberg plateau lies south of Constantia (Simon van der Stel's estate) and west of Muizenberg. Behind it is the Silvermine valley, and possibly van der Stel was visiting the (alleged) silver mine when he found the plant.

FOL. 99, numbered 71. (=T.C.D. 807). Plate VIII.

a. S.A.M. and T.C.D. are obviously representations of the same kind of plant, but there is no great similariy in arrangement of the leaves etc. No seed shown separately in S.A.M.

b. (=T.C.D. 808). Plate XII
Dese bomen waer uÿt meest alle bosschagien des ge-/heelen Namaquaschen Lands bestaen, word van ons :/: mits/de veelheÿt van sÿn schadelÿke doornen :/: een doorn-boom,/ en van de Inwoonders Choe genoemt, wast op tot een brave/groote, is goed hard en bekwaam hout, maer valt door de/bank vrÿ wat krom, dese bomen werden nergens gevonden,/als alleen waer eenig boven of onderaardsche rivier loopt,/hoe kleÿn het ook wesen mag, de bloemen zÿn van een/uÿtstekende angename reuk, na deselve volgt een bone,/waer in eenig pitagtig saed gevonden word. Derselver/kragt en werkinge is tot nog toe onbekend. In 8b: 9b:/en 10b: 1685 gevonden.
This tree, of which almost all the wooded areas in the whole of Namaqualand consist, was called by us—on account of the quantity of dangerous thorns—a thorn-tree, and by the inhabitants Choe, grows to a goodly size, is good hard and useful wood, but of a somewhat crooked grain; these trees are never found except where a surface or underground stream runs, however small it may be; the flowers have an outstanding pleasant scent, after them follows

a bean in which are found a few pip-like seeds. Their properties and effects are still unknown. Found in October, November and December, 1685.

[N.L.B.] Acacia Africana Abruae folio aculeata, spinis longissimis horrida. Pluken. Phyt. tab. 123, Fig. 2. forte.
Acacia Americana spinosissima, floribus luteis, globosis, fructu tenui toroso dulci. Breÿn. Prodr. 2.

FOL. 101, numbered 72. (=T.C.D. 791). Plate VII.

b. (=T.C.D. 792).

Dese soorte van Carduus wast op den Dassenbergh, ge-/vonden den 14 Septemb : 1685.

This kind of Carduus [thistle] grows on the Dassieberg, found 14 September, 1685.

[N.L.B.] Carlina Chrÿsanthemos Africana humilis. Pluken. Phyt. Tab. 154, Fig. 6. Carlina Chrÿsanthemoides flore luteo Capitis Bonae Spei. Breÿn. Prodr. 2.
Carlina Capensis, Pilosellae foliis. Petiv. Gazoph. Tab. 82. Fig. 10.

FOL. 103. numbered 73. (=T.C.D. 863). Plate VII.

b. (=T.C.D. 864).

Citisus Arborescens met purperagtige bloemen, gevonden/den 12 Septemb : 1685.

Cytisus [broom] Arborescens with purple flowers, found 12th September, 1685.

[N.L.B.] Anagÿris Africana angustis siliquis, flore coeruleo. Pluken. Phyt. Tab. 133, Fig. 5.
Anagÿris Capensis flore coeruleo. Petiv. Gazoph. Tab. 83. Fig. 8.

FOL. 105, numbered 74. (=T.C.D. 831). Plate VII.

b. (=T.C.D. 832).

Dese wortel wast op vogte en moerassige plaatsen, is van/een soete en angename maer wateragtige smaek, is be-/kwaem om voor een dagelÿx kostje voor de Hongerige Hot-/tentots te verstrecken, wast op sommige plaatsen van het/Land der Namaquas, en van haar berroe genoemt, gevonden/den 27 Septemb : 1685.

This root [tuber] grows in damp and marshy places, has a sweet and pleasant but watery flavour, is easy for the hungry Hottentots to obtain for their daily food, grows in some places in the country of the Namaquas and by them called berroe, found 27 September, 1685.

[N.L.B.] Brÿonia Sideritidis folio multiplici dispermos, flore coeruleo Promontorio Bonae Spei. Pluken. Phyt. Tab. 152. Fig. 1.
Apocÿnum tuberosa radice, scandens. Petiv. Gazoph. Tab. 84, Fig. 4. [This reference cancelled]. Brÿonioides Capensis bulbosa, flore coeruleo, dispermos. Petiv. Gazoph. Tab. 82, Fig. 12.

FOL. 107, numbered 75. (=T.C.D. 853). Plate VII.

b. (=T.C.D. 854).

Dit gewas van reuk en bladeren gelÿct te zÿn een soorte/van Stoechas, de wortel daer van is van een sterken an-/genamen ,,Chephalischen'' reuk, word genoemt van de Inboorlingen Doucuma/[Chephalischen between the lines].

This plant from its smell and leaves appears to be a kind of Stoechas [=*Helichrysum*], its root has a strong and pleasant Chephalic smell, is called by the inhabitants Doucuma.

[N.L.B.] Chrÿanthemum Africanum ad radicem Umbelliferarium more, comosum. Pluken. Phyt. Tab. 160, Fig. 4.
Chrÿanthemum Capense, folio oblongo. Petiv. Gazoph. Tab. 81, Fig. 8.

FOL. 109, numbered 76. (=T.C.D. 793). Plate VIII.

b. (=T.C.D. 794).

Dit gewas wiens wortel en stam uÿt een brosse sub-/stantie sonder onderscheÿd, werd gevonden op veele plaet-/sen der Namaquas, de Stam met de wortel an 't vier/gebraden is angenaam om te eeten, word bÿ de Nama-/quas als een gemeen kostje 't geheele Jaer lang gege-/ten, en van haer Thumma genaamt, gevonden de 30 7b^r 1685.

This plant, whose root and stem without differentiation consist of a brittle substance, was found in many places in the country of the Namaquas, the stem and root when roasted on the fire is pleasant to eat, is eaten by the Namaquas as a common food all the year round, and called by them Thumma, found 30 September, 1685.

[N.L.B.] Alsine carÿophÿloides Africana, radice magna Astragalite Pluken. Phyt. Tab. 128, Fig. 4.
Bermudiana Capensis, radice magna, carnosa. Petiv. Gazoph. Tab. 57, Fig. 7.

FOL. 111, numbered 77. (=T.C.D. 817). Plate VIII.

a. The fruits are coloured bright scarlet, not " brown-red."

b. (=T.C.D. 818).

Een soorte van wilde aspergies, met bruÿn-rode bes-/jes, gevonden den 6 Septemb^r 1685.

A kind of wild asparagus, with brown-red berries, found 6 September 1685.

[N.L.B.] Asparagus sive Cornuda sylvestris Africana, aculeata, foliis pennas avium referentibus nobis.
Frutex Capensis baccifer spinosus, foliis pennas avium referentibus. Pluken. Phyt. Tab. 184, Fig. 1.
Asparagus Capensis spinosa, foliis fere ternis plumosis Petiv. Gazoph. Tab. 57, Fig. 6.

FOL. 113, numbered 78. (=T.C.D. 825). Plate VIII.

b. (=T.C.D. 826).

Dese wortel wast op vogte en sandige grond, word bÿ/de Inwoonders in groote astime gehouden, ende van/haer gegeten om het water aftesetten, en ook niet/sonder redenen, want deselve een soorte van brionia/te zÿn ondervonden is, word op veele plaetsen deses/ lands, maer insonderheÿt tusschen de Olÿphants en/doornbosch rivier gevonden, en van de Namaquas/Camarebi, en van de Grigriquas Camao genoemt,/van ons gevonden den 27 7b : 1685.

This root grows on moist and sandy ground, is held in great esteem by the inhabitants, is eaten by them as a diuretic, and not without good reason, because it has been found to be a kind of Bryony, was found in many places in this country but especially between the Olifants and Doornbosch rivers, called by the Namaquas Camarebi, and by the Grigriquas Camao, found by us 27 September, 1685.

[N.L.B.] Apocÿnum scandens radice tuberosa Promontorii Bonae Spei Pluken. Phyt. Tab. 138, Fig. 4.
Apocynum scandens tuberosa radice. Petiv. Gazoph. Tab. 84, Fig. 4.

In the Dutch text the original spelling was " brionia " ; a ÿ has been written with a different pen, and ink, over the first i.

FOL. 115, numbered 79. (=T.C.D. 829). Plate VIII.

b. (=T.C.D. 830).

Gladiolus Esculentus, gevonden den 10 en 11 7b^r/1685.

Gladiolus esculentus, found 10 and 11 September, 1685.

[N.L.B.] Sisÿnrichium viperatum Capitis Bonae Spei Pluken. Phyt. Tab. 224, Fig. 8.
Sisynrichium Capense, monanthos, flore cucullato. Petiv. Gazoph. Tab. 58, Fig. 2.

FOL. 117, numbered 80. (=T.C.D. 789). Plate VIII.

b. (=T.C.D. 790).

Dit gewas word gevonden in de laagten omtrent/Meÿerhofs Casteel, de wortel is volgens verhaal der/inwoonders purgerende en word altemets in dese ge-/legenheÿt met goed succes gebruict, word van de/Namaquas en Grigriquas Qua-roebe genoemt.

This plant was found in the neighbourhood of Meyerhofs Casteel, the root is according to the inhabitants purgative and is always used in such cases with good success, called by the Namaquas and Grigriquas Qua-roebe.

[N.L.B.] Hÿacinthus Africanus Orchioides diphÿllas, flore croceo, Colchici fritillarici foliis undatis, capsula inflata.
Pluken. Phyt. Tab. 195, Fig. 6.
Petiv. Gazoph. Tab. 87, Fig. 7.

Described by Petiver as "Comptonia Capensis lutea, trifoliata, crispa" in honour of Bishop Compton.

FOL. 119, numbered 81. (=T.C.D. 827). Plate VII.

b. (=T.C.D. 868).

Dese soorte van Geranium met een welriekende/bloeme, werd gevonden an de Berg-fonteÿn en das-/senberg, heeft een brosse en murwe stam, en is soet/en angenaem van smaek, word van de Inwoonders/gegeten ende genaamt Cabouti; gevonden den 13 7b: /1685.

This kind of Geranium with a sweet-scented flower was found at Bergfontein and Dassieberg, has a brittle and soft stem and a sweet and pleasant flavour, is eaten by the inhabitants and called Cabouti, found 13 September 1685.

[N.L.B.] Geranium Africanum noctu olens, Aquilegiae folio, flore incarnato rubente. Pluken. Phyt. Tab. 187, Fig. 1.
Geranium Capense Carÿophÿllatae foliis, caudice spinoso. Petiv. Gazoph. Tab. 84, Fig. 8.

S.A.P.L. B15 has crimson flowers. The text reads: Geranium columbinum met schone rode Bloemen, word gevonden omtrent de bergfontein. Cf. S.A.M. fol. 57 (50).

FOL. 121, numbered 82. (=T.C.D. 851). Plate VIII.

b. (=T.C.D. 852).

Dese seer rare Esula, welke een soorte van Euphorbium/schÿt te wesen, word omtrent de minerale bergen, tus-/schen hoge klippen gevonden, de melk of sap daer/uÿt word bÿ de inwoonders voor lÿm gebruict, om hare/kokers en pÿlen daer mede te lÿmen, en word van haer/Tkaubÿ genoemt, gevonden den 25 Octob : 1685.

This very rare Esula, which appears to be a kind of Euphorbium, was found among high rocks at the mineral [Copper] Mountains, the milk or sap thereof is used by the inhabitants as a gum to smear over their quivers and arrows, and is called by them Tkauby, found 25 October 1685.

[N.L.B.] Tithÿmalus Africanus spinosus, Cerei effigie. Pluken. Phyt. Tab. 231, Fig 1, &c.
Euphorbium Capense, Cerei effigie, spinosum. Petiv. Gazoph. Tab. 90, Fig. 2.

White, Dyer, & Sloane in *Succulent Euphorbieae*, vol. 2, p. 711 reproduce T.C.D. 851 and Plukenet's illustrations as figs. 796 and 797 respectively, showing that Plukenet wrongly inserted simple spines among the forked ones and thus altered the characteristics of the species.

FOL. 123, numbered 83. (=T.C.D. 847). Plate VII.

b. (=T:C.D. 848).

Dese Heester wast op sandige grond, draagt een vrugt/angenaam om te eeten, maer geweldig asstringerende,/werd van de Nederlanders Baviaens kerse genoemt,/gevonden den 18 Janÿ 1686.

This shrub grows on sandy ground, bears a fruit pleasant to eat, but exceedingly astringent, called by the Netherlanders Baboons Candle, found 18 January, 1686.

[N.L.B.] Cerasus Africana fructu rubro multiplici folio longiore angusto. Pluken. Phyt. Tab. 158, Fig. 3.
Forte Cambuc Pernambucc : fruticescens. Jonst. Dendr. page. 243.
Cerasus Capensis, fructu rubro racemoso, pediculis perbrevibus. Petiv. Gazoph. Tab. 87, Fig. 11.

FOL. 128. (=T.C.D. 761). Plate IX.

a. Picture lengthwise on folio, beak pointing to head margin, feet to back margin. T.C.D. also has the peculiar elongation of the body, covered with small feathers, with the long tail feathers inserted at the end, resembling the caudal peduncle of a fish. But S.A.P.L. Z14 is drawn without this prolongation.

b. (=T.C.D. 762).

Dese soorte van Tortelduifjes word gevonden doorgaans/in het gebergte van de Namaquas, en van haer ge^{t}/Chaboÿ den 18 Octob : 1685.

This kind of Turtledove was found throughout the mountainous country of the Namaquas, and called by them Chaboy, found 18 October 1685.

[E. L. Layard] *Œna Capensis* (Linn.).*

T.C.D. text says it was found on 10 October ; S.A.M. has distinctly 18.

FOL. 130. (=T.C.D. 759 upper fig.). Plate IX.

a. A crude picture, gives the impression of having been hastily done. Transverse on folio, beak facing back margin (left).

b. (=T.C.D. 760, text of lower figure).

Dese soorte van Torteldniven word doorgaans in het/Land der Namaquas gevonden, en gelÿk de andere Que-/lip genoemt, van ons geschoten den 4^{e} Novemb : 1685.

This kind of Turtledove was found throughout the country of the Namaquas, and like the other kind called Quelip, shot by us 4th November, 1685.

[E.L.L.] *Œna capensis* (Linn.).

The native name corresponds (quelip—queip) with the text pertaining to the lower figure in T.C.D., but the tail corresponds with that of the upper figure.

FOL. 132. (Not in T.C.D.). Plate XI.

a. (upper figure). Dorsal view of a beetle with plumose antennae, and elytra with tufts of fur like a *Julodes*.

(lower figure). Dorsal view of a beetle with bifurcate mandibles, and 8 pairs of legs ; elytra brown striped with black, with 3 white dots on each lateral margin. Unmistakably an *Anthia*.

b. Dese twee soorte van torren worden gevonden op diversche plaatsen omtrent/d'Olÿphants Rivier.

These two kinds of beetle were found at various places along the Olifants River.

[E.L.L.] 1. (blank). 2. *Anthia*.

---

* Identifications in pencil after the Dutch text are in E. L. Layard's handwriting. Footnote p. 14.

FOL. 134. (Not in T.C.D.). Plate XI.

a. (upper figure). A Nemopteron, long antennae, broad fore-wings, narrow elongate hind-wings, with oar-like apical expansions. Crudely drawn, but obviously a representative of the genus *Nematoptera*.

(lower figure). A Stick-insect. Very crude.

b. Een gevleugelde mÿre gevonden in't Land der Namaquas/den 12 8 ber 1687 [7 sic].

Een soorte van Sprinckganen gevonden den 4 7ber.

A winged ant found in the country of the Namaquas 12 October 1687 [sic].

A kind of grasshopper found 4 September.

[E.L.L.] (upper) *Nemoptera*. (lower) *Bacillus*.

FOL. 136. (=T.C.D. 783). Plate XI.

a. (upper figure). In many respects (e.g. small eyes) a truer picture of the insect than T.C.D.

(lower figure). Similar to T.C.D., but the legs, especially the first 2 pairs larger proportionately to the body, first 2 pairs and the last pair of legs more profusely furry than in T.C.D., the last pair being furry to their very tips.

b. (=T.C.D. 784).

Dese Sprinkhanen word doorgaans op de meeste/plaatsen gevonden, maar weinig, wird genaamd Garam/gevonden den 12 7 ber 1685. Dese Spinnekop synde ongemeen Gau in 't loopen,/word van de Inwoonderen voor ser veninig ja/doodelÿk gehouden, word omtrend de minerale bergen/gevonden gnarebÿ genoemd ; den 5 8ber 1685.

This grasshopper was found throughout most places, but in small numbers, is named Garam, found 12 September, 1685. This spider is uncommonly quick in running, is regarded by the inhabitants as very poisonous, yea deadly, was found round about the mineral [Copper] mountains, called Gnareby, 5 October, 1685.

[E.L.L.] (upper) *Hetrodes*. (lower) Probably meant for the *Galeodes* with densely tufted hind legs found in Little Namaqualand and adjacent districts.

T.C.D. text says the lower animal was found on 25th October. It seems strange that the British Museum arachnologist did not recognise the lower picture as representing a Solpuga.

Petiver, whose picture (Gazoph. Tab. lxxxv. Fig. 9.) is more like T.C.D., calls it the "Cape Feather-leggs. A very odd Insect."

FOL. 138. (=T.C.D. 781). Plate XI.

a. Apical appendages of upper millipede relatively longer than in T.C.D. The spider has 2 black dots not on the head but on the segment behind it, longer palps, 2 squarish yellow patches on hind margin instead of the median one in T.C.D.

b. (=T.C.D. 782).

Dese Spinnekop van een seer schoone namentlÿk goud/en silver Coleur zÿnde, word gevonden op sommige/plaatsen der lage landen der namaquas, word van haar/seer vergiftig g'oordeeld, en holop genoemd den 12 9ber/1685.

Dese twee soorten van duÿsendbenen, waar van de bovenste/ langs de Olÿphants rivier, de andere in de lage landen der/namaquas gevonden werden, en van deselve Coerequeque-/kam, en van de Grigriquas toucomqueri, den 18 Septemb :/1685 gevonden.

This Spider of a very pretty gold and silver colour was found in some places in the country of the Namaquas, is regarded by them as very poisonous, and called holop, 12 November 1685. These two kinds of Millipedes, of which the upper one was found along the Olifants River, and the other one in the country of the Namaquas, and by them called Coerequequekam, and by the Grigriquas toucomqueri, found 18 September, 1685.

[E.L.L.] *Argiope. Scolopendra.*

Petiver figures the *Argiope* on Tab. lxxxv. Fig. 10, as the Yellow Cape Tarantula.

FOL. 140. (=T.C.D. 779). Plate XI.

a. Similar to T.C.D., but both figures facing upwards.

b. (=T.C.D. 780).

Dese twe soorten van schorpioenen werden gevonden de eene/ langs en omtrent de Olÿphants rivier, de andere in 't land der/ Namaquas, dewelke de stek van dese worm voor dodelÿk/houden, word van de Inlandere eÿnte genoemd, gevonden den/19 7ber en 2 8ber 1685.

These two kinds of Scorpion were found one along and near the Olifants River, the other in the country of the Namaquas, who regard the sting of this creature [worm] as deadly, was called by the inhabitants eynte, found 19 September and 2 October, 1685.

[E.L.L.] *Scorpio.*

The upper figure is an *Opisthophthalmus*, though the tail is rather too thick ; the lower figure is a *Parabuthus*.

FOL. 142. (=T.C.D. 735). Plate IX.

a. The caterpillar is very crudely painted, black bands splashed with red, and black dots representing the metallic mosaic-like areas which are so much better (as regards draughtsmanship) expressed in T.C.D. The latter is also better in this respect than S.A.P.L. Z2. This Saturnid moth is now known as *Gonimbrasia tyrrhea.*

b. (=T.C.D. 736).

Dese soorte van Wilde Conÿnen word gevonden omtrent/de mineralebergen, is angenaam en lekker van smaak/en van de Inwoonders Nabasse genoemd, gevangen den 20 8ber/1685./Diese Rispe word doorgaans in 't land der namaquas gevon/den, en dit lelik schepsel moet dese menschen dienen voor een/bÿsondere delicatesse, want na dat sÿ haar de groene vuÿligheid/uÿt haar lÿv gedruct hebben, rÿgen sÿ deselve aṅ houte speties/en als dan over de kolen geleid, tot dat sÿ beginnen hard/te werden, dan is het een lekker gebraad, maar als sÿ deselve/willen gekookt eeten, so havenen sÿ deselve gelÿk sÿ met de/groene en roode Sprinkhanen gevend sÿn te doen, namentlÿk/na dat sÿ de groovste vuÿligheid uÿt gedrukt hebben, doen/sÿ deselve in een aarden pot, sonder enig water, want so/vroeg als deselve beginneṅ heet te werden, dan ontgaat haar/een gedeeldte water waar in sÿ naderhand, onder/'t continueel omroeren, een halv uir koken en smoren,/dan word de gehele masse uÿt genomen, en 't water schoon uÿt :/gedrukt en ballen daar van gemaakt waar van sÿ nader :/hand als haar den appetÿt ankomt met sodanig een smaak/haar harte komen op te halen, dat het waarlÿk een lust/omt sien is, en word van haar aroebe genoemd, gevonden/den 25 December 1685.

This kind of Wild Rabbit was found in the neighbourhood of the mineral [Copper] mountains, is of a pleasant and sweet flavour, and by the inhabitants called Nabasse, caught 20 October, 1685. This Caterpillar is found throughout the country of the Namaquas, and this nasty beast is a particular delicacy to these people, for when they have pressed the green ordure out of the body, they impale them on wooden spits and lay them over the embers till they begin to get hard, when they form a savoury roast ; but if they want to eat them boiled they treat them as they customarily do the green and red locusts, namely, after they have pressed out the coarsest ordure, they put them in an earthen pot, without any water, until they begin to get hot, when some green liquid comes out of them in which they next boil and simmer them, with constant stirring, for half an hour, then the whole mass is taken out, the water well squeezed out, and made into balls, which afterwards when they have an appetite they consume with such gusto that it is a delight to watch ; called by them aroebe, found 25 December, 1685.

[E.L.L.] *Lepus crassicaudatus.* Larva of *Antheraea tyrrhea* Cram.

FOL. 144. (=T.C.D. 743). Plate X.

a. Picture lengthwise on folio, facing foot margin, belly facing front margin. Rather well drawn, at least as faithful a representation of the animal as T.C.D., the belly scales in fact more correct. Cf Tachard (1st Voyage) fig. xiii., and Petiver (Gazoph.) pl. lviii, Fig. 12.

b. (=T.C.D. 744).

Dese vervaarlÿke worm sÿnde een soorte van hagedissen/is doorgaans over sÿn lÿv met dikke schubben gelÿk als met/een harnas bekleed, is seer boosardig en weet sÿn Ligaam/met ser vinnig om sig te bÿten wel te beschermen, van ons/gekregen an d'eerste modderkuÿl, word van de Inboorlinge/thocou genaamd.

This fearsome creature [worm] appears to be a kind of lizard, has its whole body covered with thick scales like a harness, is very vicious and knows well how to protect its body by very quick bites, obtained by us at the First Mudhole, is called by the inhabitants thocou.

[E.L.L.] *Cordylus ? giganteus* A. Smith or *cataphractus* Dum. & Bib.

The First Mudhole is north of Koekenaap (Journ. Olaf Bergh. Van Riebeeck Soc. Public. No. 12, p. 107, footnote 24, and map).

FOL. 146. (=T.C.D. 775). Plate X.

a. Both pictures are left side views, lengthwise on folio, heads facing foot margin. Upper picture more crude than T.C.D., thicker in proportion to length and consequently appearing more like a Berg Adder. Possibly a young Mole Snake (*Pseudaspis cana*). Lower picture very crude, has a broad blue stripe along back, a thin one along the side, and without the series of dots as in T.C.D., which make the latter resemble a Legless Lizard (*Acontias*).

b. (=T.C.D. 776).

Een slange van een bonte en angename koleur, niet boven/een en een halve voet lang, word van d'Inwoonders seer/boos en veninig gehouden, en van de namaquas/thoumquete en van de grigriquas Eÿterimate genoemd,/van ons gesien den 6 September 1685.

Dese gehel kleine soorte van slangen word gevonden in 't /land der

Namaquas, en van haar genoemd noumqueab/van de grigriquas Choem, gesien den 2 October 1685.

A snake of a bright and pleasing colour, not over a foot and a half long, is considered by the inhabitants very poisonous, called by the Namaquas thoumquete and by the Grigriquas Eyterimate, seen by us 6 September 1685.

This quite small kind of snake was found in the land of the Namaquas, and by them called noumqueab, by the Grigriquas Choem, seen 2 October 1685.

FOL. 148. (=T.C.D. 773). Plate X.

a. Left side view, lengthwise on folio, head facing head margin. Very roughly executed. Blackish-brown.

b. (=T.C.D. 774).

Dese slange altemets an lengte boven de 7 a 8 voeten/halende, en vervaarlich om an te sien, word van de Sunquas/met groote graagheid gegeten, en voor seer lekker gehouden,/bÿ haar genoemd krÿkaras, en bÿ de Caapsche Cabcou word/overal gevonden, den 6 October 1685.

This snake often reaching a length of over 7 or 8 feet and of dangerous appearance, is eaten with great relish by the Sunquas and considered very excellent, called by them krykaras, and by the Cape people Cabcou, is found everywhere, 6 October, 1685.

The name krykaras in the Dutch text can be read as krÿ or keÿ . . . , as the letter e is written in three different ways in the 5 lines of text. It seems most likely to be intended for an e, especially as T.C.D. has keÿkaras.

In Waterhouse the British Museum suggested Mole Snake with a ? for this picture. There is no doubt that this identification is correct.

FOL. 150. (=T.C.D. 769). Plate X.

a. Both left side views, lengthwise on folio, heads facing head margin. Not quite so much care taken over the scaling as in T.C.D., and heads of both disproportionately large. The upper one green, darker on the back, with pale comma-like dashes, black patch on either side at back of head, sides yellowish, belly pale grey. It is a little difficult to decide which is " de bleeke ".

b. (=T.C.D. 770).

Dese twee soorte van schlangen worden gevonden/in de bosschen van St. Martins Klove, werdende de/bleeke van de inwoonders seer schadelÿk gehouden.

These two kinds of snake are found in the bush in St. Martin's Kloof, the pale one is considered by the inhabitants to be very harmful. St. Martin's Kloof (valley) at the north end of Piquetberg and leading to Het Kruis, Redelinghuis, and Verloren Vlei.
The upper figure with black patches behind the head and the pale dashes is unmistakably the Yellow-lipped Snake (*Leptodira*). The lower figure is probably an Egg-eater (*Dasypeltis*).

FOL. 152. (Not in T.C.D.). Plate X.

a. Both pictures lengthwise on folio, heads facing head margin. Upper one with 4 brown stripes on back and an orange tail. Lower one with broad brown back and two lateral brown stripes on a yellow ground-colour, tail brown.

b. Dese twe vremde soorten van hagedissen worden meest/in 't gebergte der namaquas gevonden, van ons geobservoeer/den 20 December 1685.
These two strange kinds of lizard are mostly found in the mountains of the Namaquas, observed by us 20 December 1685.
[E.L.L.] 1. *Eremias.* 2. *Eremias Namaquensis* Dum. et Bib.

FOL. 154. (=T.C.D. 745, missing). Plate X.

a. Drawn lengthwise on folio, head facing foot margin. Brown with 7 or 8 blue lozenge-shaped patches along middle of back and tail, blue patches on arms and legs. Obviously intended to represent a species of *Agama.*

b. (=T.C.D. 746).
Dese soorten van hagedissen word op veele plaatsen tusschen/ en op de klippen gesien, geneerd sig met vliegen en alder :/hande kruÿpende gewormte, word van de inwoonderen/Hagou genoemd, gevonden den 5 9ber 1685.
This kind of lizard was seen in many localities between and on the rocks, nourishes itself with flies and all kinds of crawling creatures [worms], called by the inhabitants Hagou, found 5 November, 1685.

FOL. 156. (=T.C.D. 777). Plate X.

a. Lengthwise on folio, head facing head margin. The ligatured poison bag is relatively larger than in T.C.D.

b. (=T.C.D. 778).
De giftige slangen, werdende boven de 6 voeten lang werd/van de Inwoonders seer gesogt, want sÿ met het fenÿn haar/pÿlen en hasegaÿen vergiftigen, 't welk op volgende manier/toegaat : 't vel

van de boven kakebenen los gemaakt zÿnde/comt een land werpig blaasje voor den dag vol van kleine/glandulen, welkers einde ofte openinge bÿ de boven slag :/tand uÿtgaat, waar uÿt een Witte klare slÿm ofte saliva uÿt :/komt, 't welk eÿgentlÿk het fenÿn is, waar met sÿ/haar geweer bestrÿken ; dit bursie of blaasje of [. . . ? . . .] /glandula salivalis, binden sÿ eerst aldernaast de tand/met een fÿn draatje toe, daar d'openinge is, anders soude door/het havenen en drukten de veninige Saliva 't eenemal/uÿtlopen; dit beurse gedroogt zÿnde snÿden sÿ het selve/van malcanderen, en bestrÿken als sÿ het voor nodig/agten haar geweer daar meede, dese slange welke/over al gevonden word, wird bÿ alle hottentots hamachou/genoemd, den 8 9ber 1685 gesien.

This poisonous snake, reaching over 6 feet long, is very much sought by the inhabitants because they poison their arrows and assegais with its venom, which is done in the following manner : when the skin of the upper jaw is loosened there comes to light an elongate bladder full of small glands, the end or opening of which runs out near the upper fang, and from which exudes a white clear slime or saliva which is actually the poison with which they smear their weapons ; this bag or bladder or [. . . ? . . .] glandula salivalis they first bind with a fine thread next the fang where the opening is, else with handling and pressing the poisonous saliva would run out ; when the bladder is dry they cut it into pieces and smear their weapons with it when they think needful ; this snake which is found everywhere is called by all Hottentots hamachou, seen 8 November 1685.

[E.L.L.] *Naja haje*, Men.

In Waterhouse the identification suggested by the British Museum was " Mamba (?) ". The yellow colour of the S.A.M. picture clearly indicates that it is meant to portray the Yellow Cobra.

FOL. 158. (=T.C.D. 771). Plate X.

a. Lengthwise on folio, head facing head margin. More crudely drawn than T.C.D. Cf. Tachard (1st Voyage) fig. x, and Petiver (Gazoph.) pl. lvii, fig. 16.

b. (=T.C.D. 772).

Dit wonderlÿke boosaardige schepsel sÿnde een gehoornde/adder, word op diversche plaatsen des lands der namaquas/gevonden ; volgens 't verhaal van de Inwoonders/moet die genen die haar van gebeten is binnen/6 uuren sterven, en word van haar Choreep genoemd/gesien den 6 September 1685.

This wonderful [and] vicious animal appears to be a horned adder, was found at various places in the land of the Namaquas ; according to the statements of the inhabitants those who are bitten by it die

within 6 hours, called by them Choreep, seen 6 September, 1685.
[E.L.L.] *Vipera (Cerastes) Cornuta.*

FOL. 160. (=T.C.D. 751). Plate IX.

a. Lengthwise on folio, head facing head margin. Mouth open showing red palate ; apparently hastily done, barbels not clearly shown, scaling very irregular, scales far too numerous. Vent shown. Fins without rays, only a few rays indicated in tail. S.A.M. has the dorsal fin shown in its correct position, above or slightly in advance of the pelvic fin ; but in T.C.D. it is far forward, nearer to pectoral than to pelvic fin. Scales in T.C.D. nicely dotted in, but too few in number. In S.A.P.L. Z1 origin of dorsal fin is midway between base of pectoral and base of pelvic ; anal fin reaching to base of caudal, peduncle very short ; two barbels ; about 40-45 scales along the side. The correct number of scales for this fish is 41-45. The S.A.P.L. picture is therefore in this respect either a happy accident, or the result of accurate observation on the part of the artist. Dr. Andrew Smith's artist (1841), in a scientific publication, put in 63 scales in his illustration !

b. (=T.C.D. 752). Plate XII.

Dese soorte van Visch altemets over de drie a 4/voeten lang groeÿende, wird nevens ontelbare brasem[s/in groote menigte met de hoek in de Olÿphants Revier/gevangen, is wel soet en angenaam van smaak, maar/weekagtig van vleesch en vol kleÿne graatjes, 't welke een/groote tegenheid veroorsaakt, ook is het kuÿt van dese/visch schadelÿk, wand ÿmand daar van gegeten hebb[en/word anstonts qualÿk, met groote pÿn in de buÿk, gev [ind/ook geen betershap voor dat hÿ sterk an 't braken ge :/raakt is, 't welk noÿt uÿtblÿvt, gevangen den 18 7ber 1685.

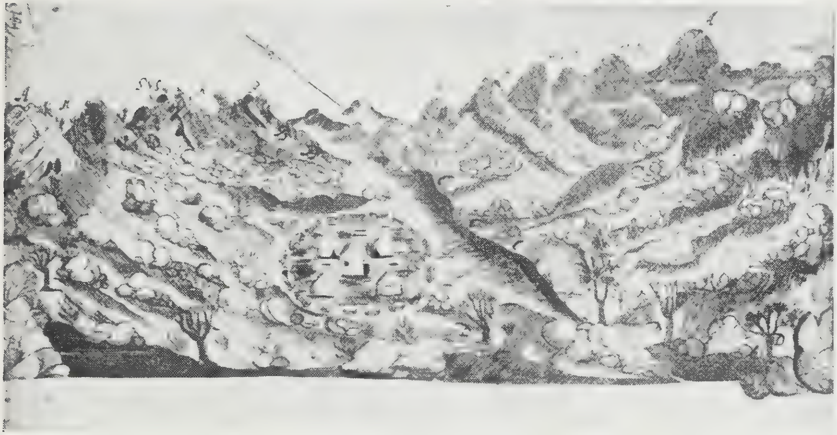
This kind of fish, often growing to over 3-4 feet long, was together with innumerable bream caught in large numbers with the hook in the Olifants River, is sweet and pleasant in flavour, but soft-fleshed and full of small bones, which necessitate great care [in eating], also the roe of this fish is harmful for when anyone has eaten it, he instantly becomes ill, with great pain in the stomach, and finds no relief until he has thoroughly vomited so that nothing remains [in his stomach], caught 18 September 1685.

[E.L.L.] *Barbus capensis* A. Smith.

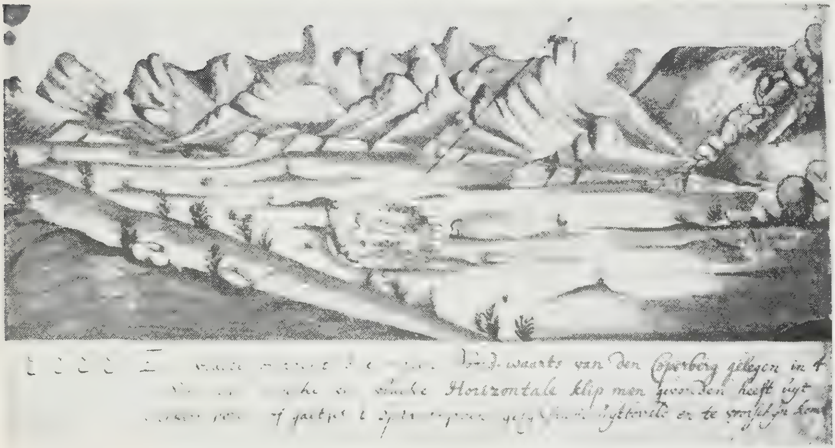
The folio is loose, with the back margin torn in places, hence the endings of some of the words are missing.

T.C.D., S.A.M., and S.A.P.L. are the first known attempts to portray the Olifants River or Clanwilliam Yellow-fish (*B. capensis*), nowadays well-known as a sporting fish.

A description of the Codex Witsenii in the South African Museum.



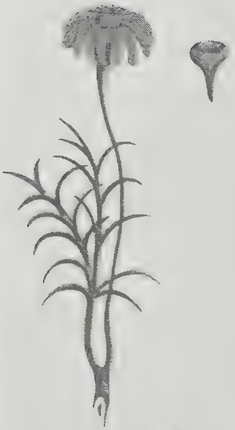
Fol. 3.

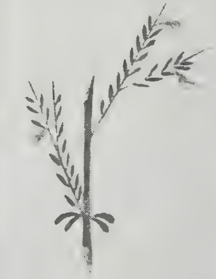


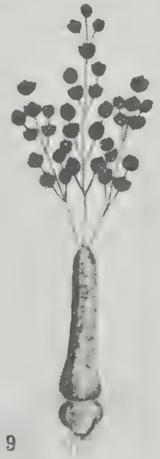
[illegible] waarts van den Coperberg gelegen in
[illegible] Horizontale klip men gevonden heeft uyt
[illegible] uytkreede en te [illegible]

Fol. 5.

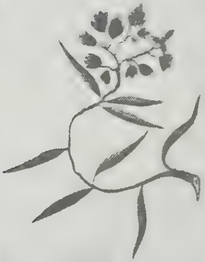
PLATE I.

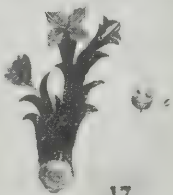

19

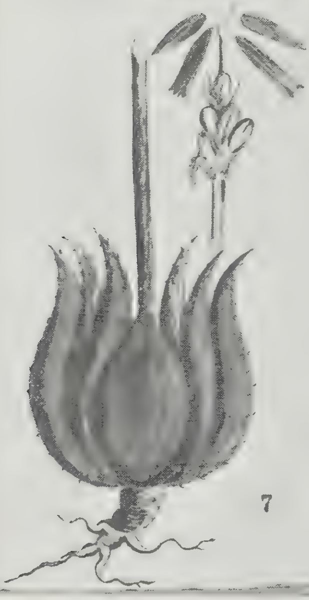

31

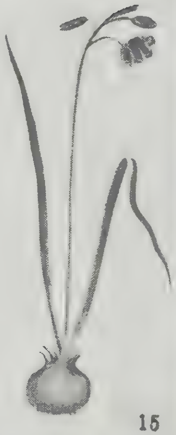

9

13


11


17


7


15

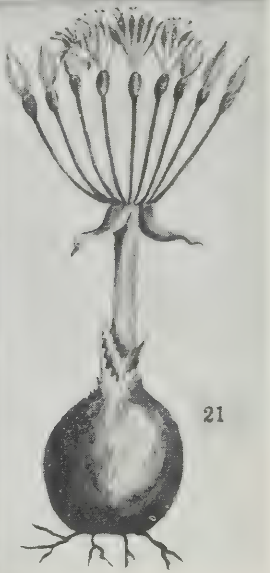

21

PLATE II.

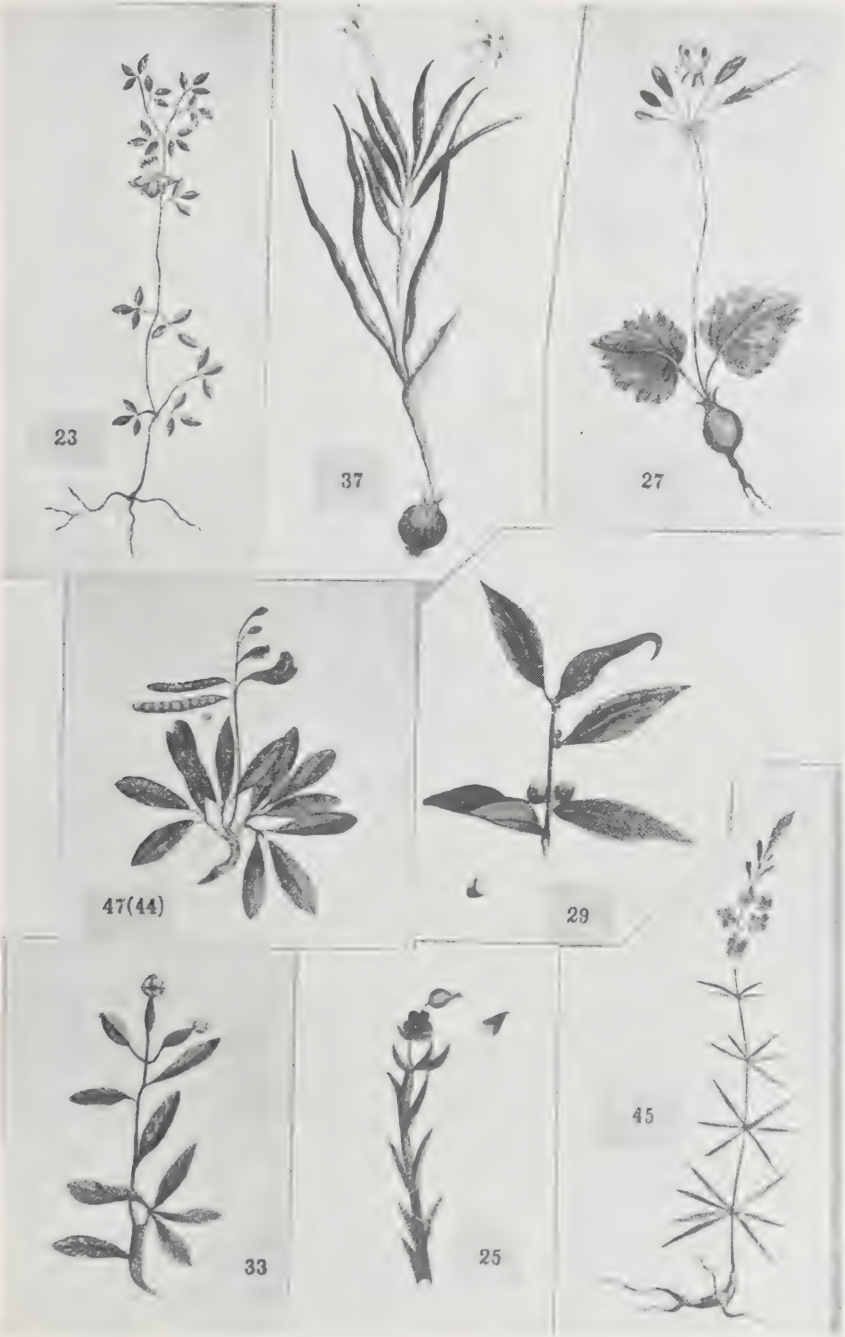
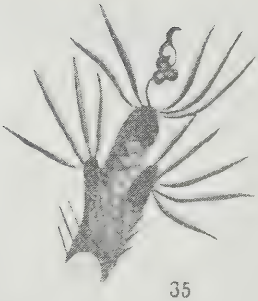


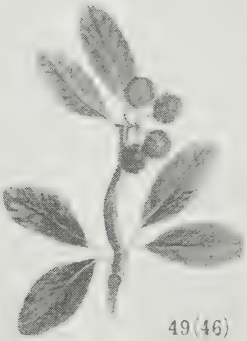
Plate III.



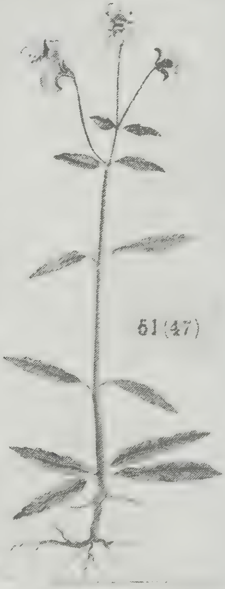
35

73(58)

61(52)

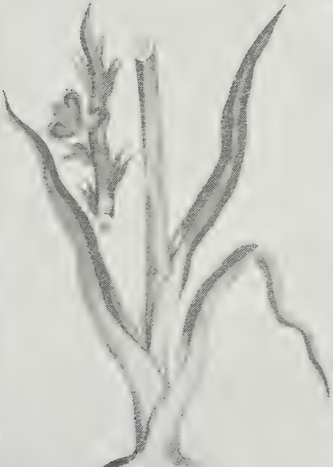


49(46)

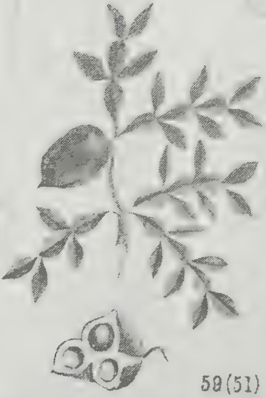


51(47)

79(61)



67(55)



59(51)

69(56)

PLATE IV.

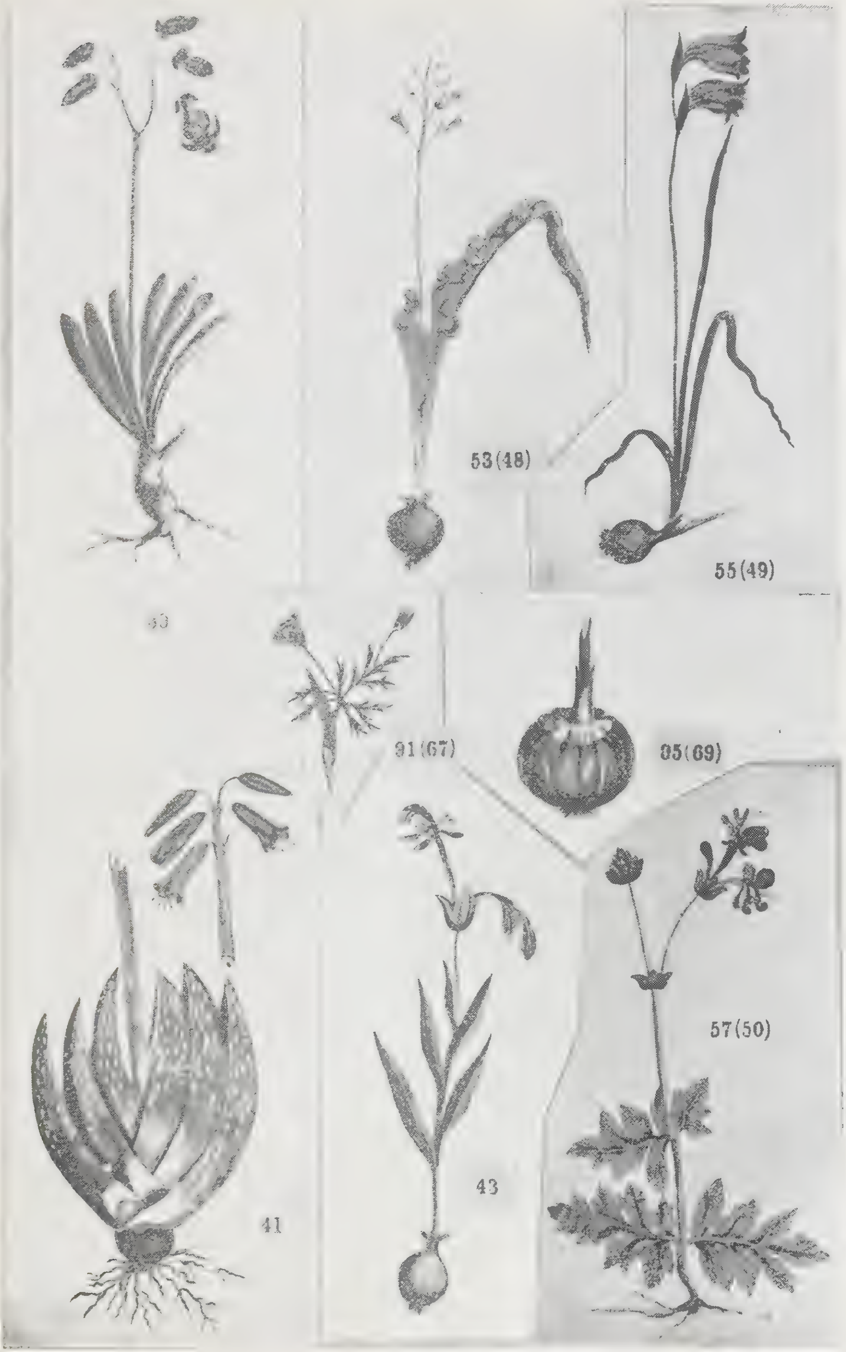


PLATE V.

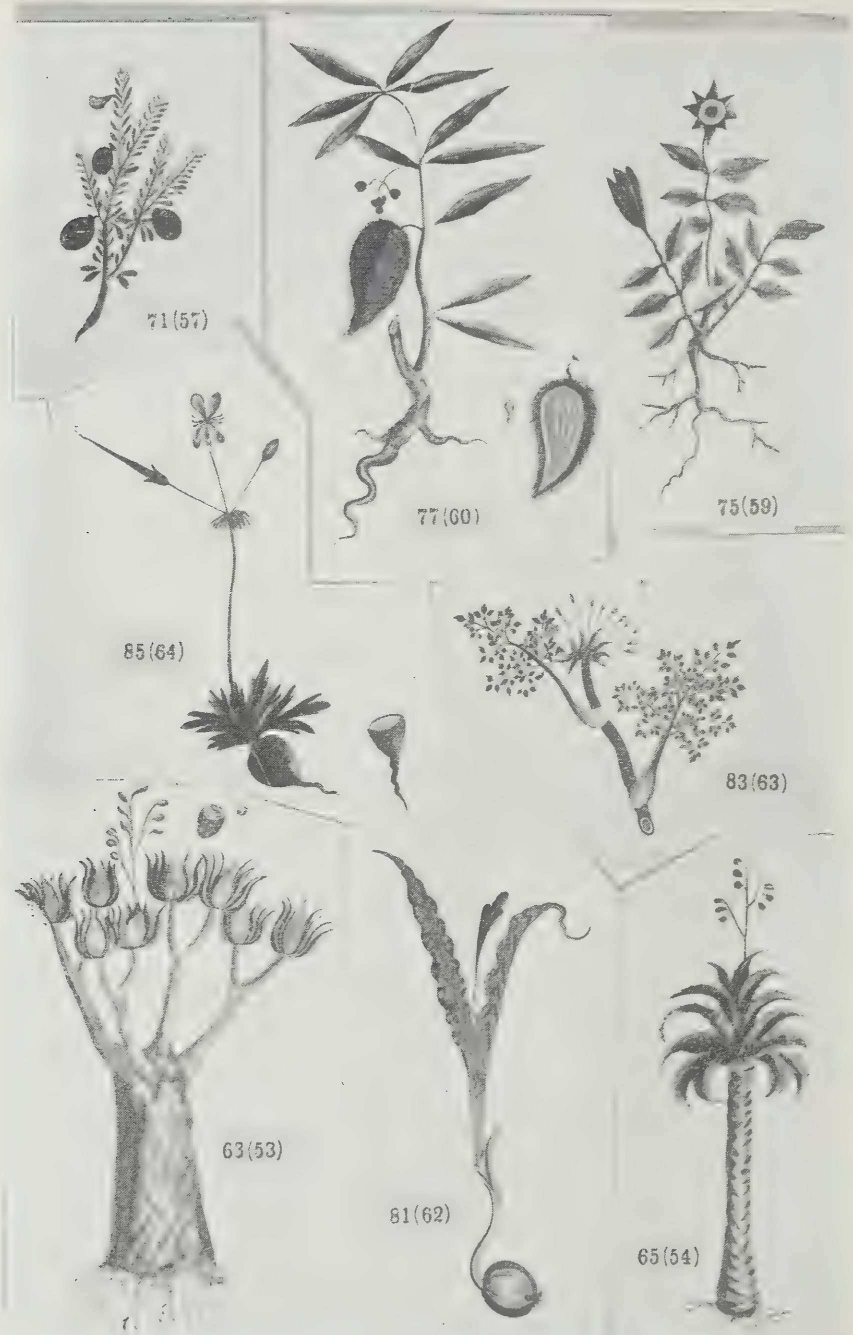
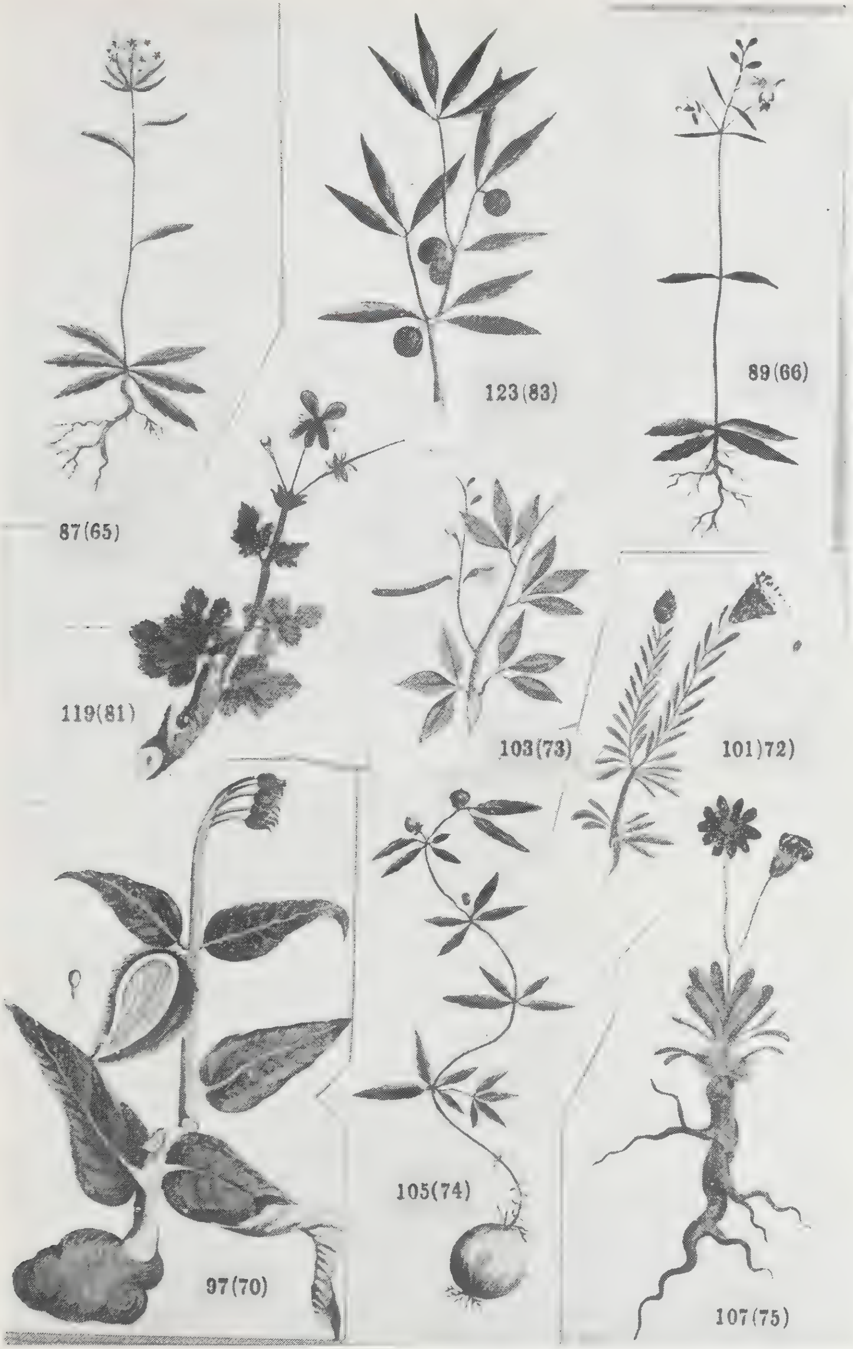


Plate VI.



87(65)

123(83)

89(66)

119(81)

103(73)

101)72)

97(70)

105(74)

107(75)

PLATE VII.

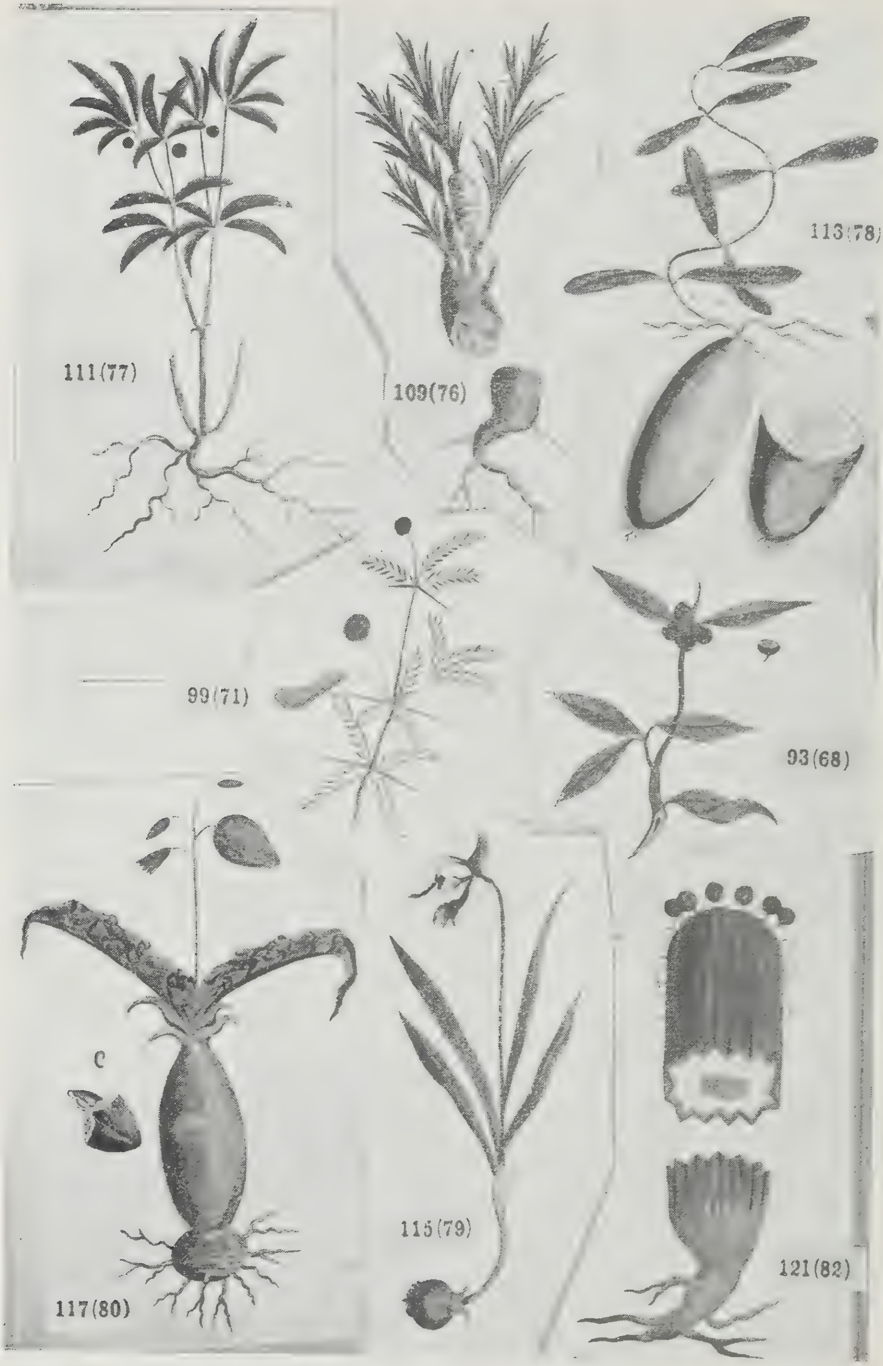
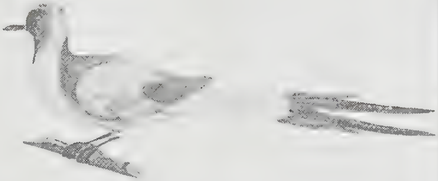
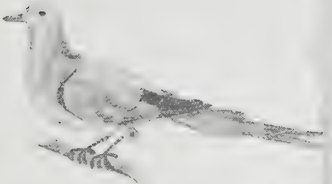


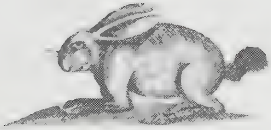
PLATE VIII.

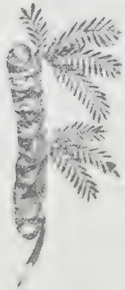


128

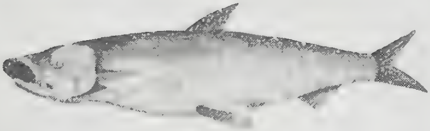


130



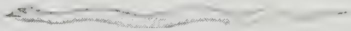


142

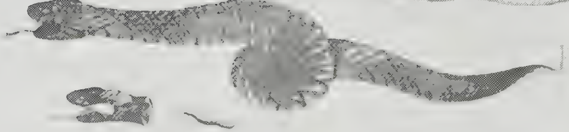


160

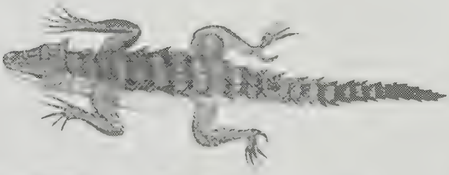
Plate IX.



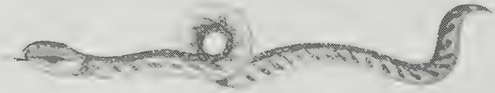
146



156

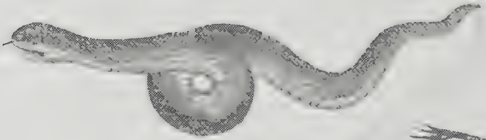


144

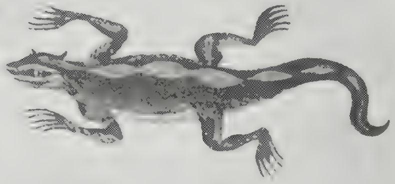


150

152



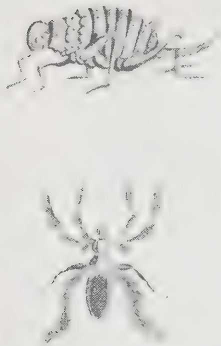
148



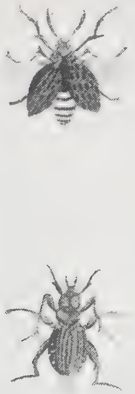
154

158

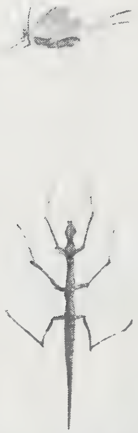
PLATE X.



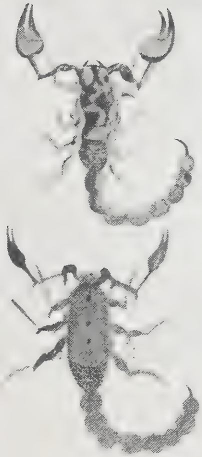
136



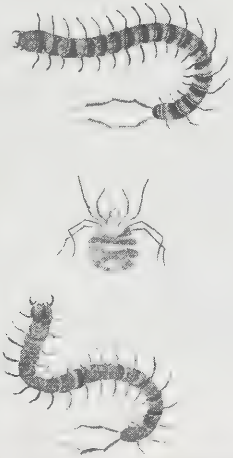
132



134



140



138

PLATE XI.